PRECISION

WEATHER

INSTRUMENTS

Davis Instruments

ENVIRONMENTAL INFORMATION FOR HOME & INDUSTRY

2004 CATALOG

What's New?

GLOBE Protocol. Students can now participate in the worldwide GLOBE program with a new protocol developed just for Davis. For more information, visit www.globe.gov.

Daytime Fan-Aspirated Radiation Shield Kit. Adds the benefits of fan aspiration to your wireless or cabled Vantage Pro or Pro Plus. **See page 6.**

Wireless Soil Moisture/Temperature Station. With up to 4 soil moisture sensors and 4 temperature sensors. **See page 7.**

WeatherLink Modules. New plug-in software modules add e-mail and phone alerts, plus specialized reporting for farmers, growers, and turf managers. **See page 12.**

WindScribe™. Handheld wind speed meter uses patented ultrasonic technology to measure the wind. **See page 17.**

Clearance Center. Discontinued models are now available on our website at low closeout prices. Stock up now, while supplies last. **Go to www.davisnet.com.**

As always, please contact one of our customer service representatives if you have any questions. We're always glad to help.

(510) 732-9229 Main telephone line.

(510) 732-7814 For answers to technical questions or help with trouble-shooting.

(510) 670-0589 Fax to Customer Service or Tech Support.

www.davisnet.com Visit our web site.

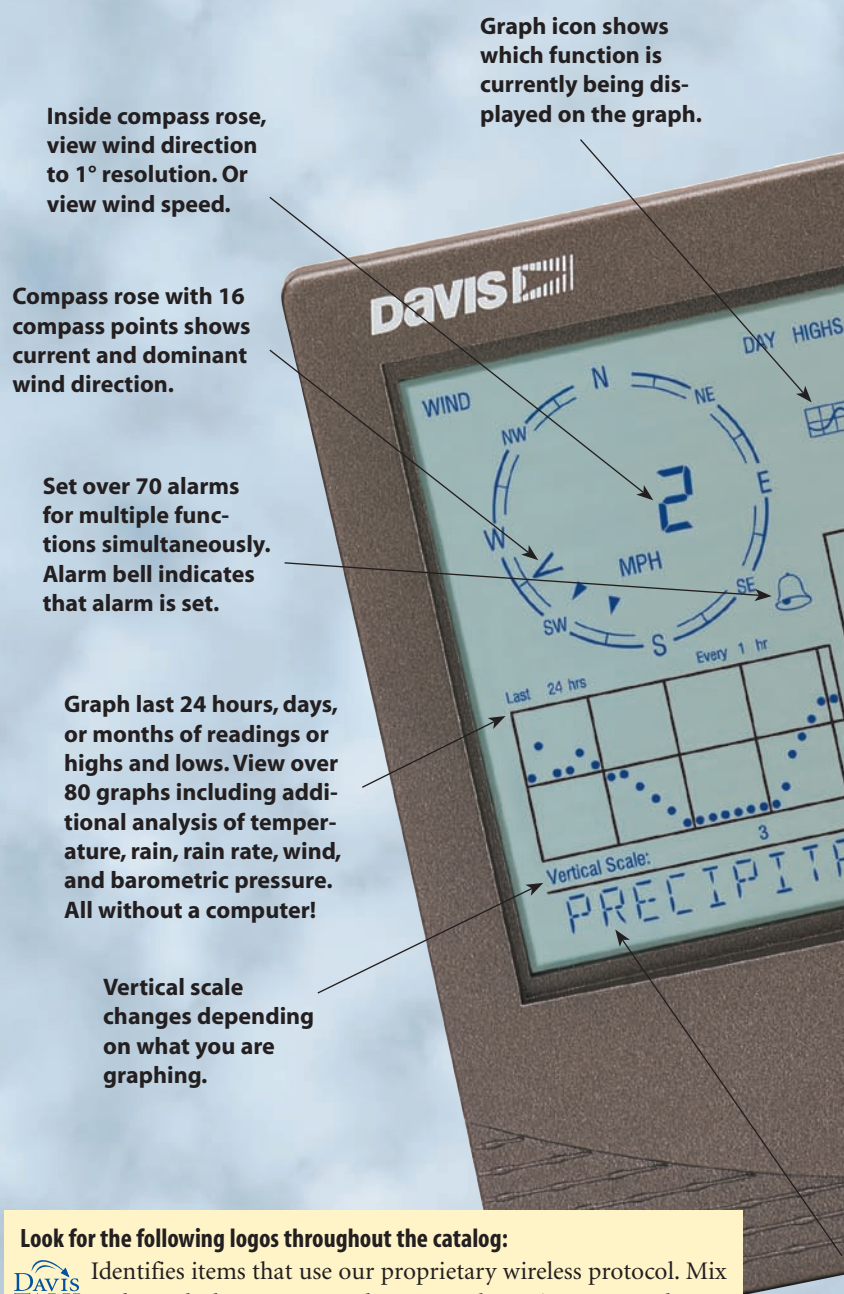
sales@davisnet.com E-mail to Customer Service.

support@davisnet.com E-mail to Technical Support.

info@davisnet.com General e-mail.

After nine years on the job, Marilyn Ivey's Weather Monitor II is still going strong. Marilyn took this photo of a pyrocumulus cloud in August, 2003. She writes: I had been watching my anemometer all afternoon. The wind didn't know what to do with itself. When it swung to the east I knew I would have to leave. Within minutes, a fireman was in my yard saying, "Lady, get out of here. It's time to GO!" The fire was eventually stopped less than ¼ mile from my home. Many people had less warning than I did—they don't have a Davis weather station!

Still the best! No other weather station comes close to Vantage Pro® in accuracy or the amount and depth of data collected. Only Vantage Pro gives you highs and lows (and/or totals or averages) for just about all weather variables for the last 24 days, months, or years—all without a PC! Find out just how windy it is today compared to the last wind storm, or how this month's rainfall compared to last month's. Plus, you'll get your own local forecast using data gathered right in your own backyard. View it all on a large 3½" × 6" (9 × 15 cm) LCD screen. Add our WeatherLink data logger and software package for even more analysis. Backlit display for easy viewing. U.S. and metric units of measure.

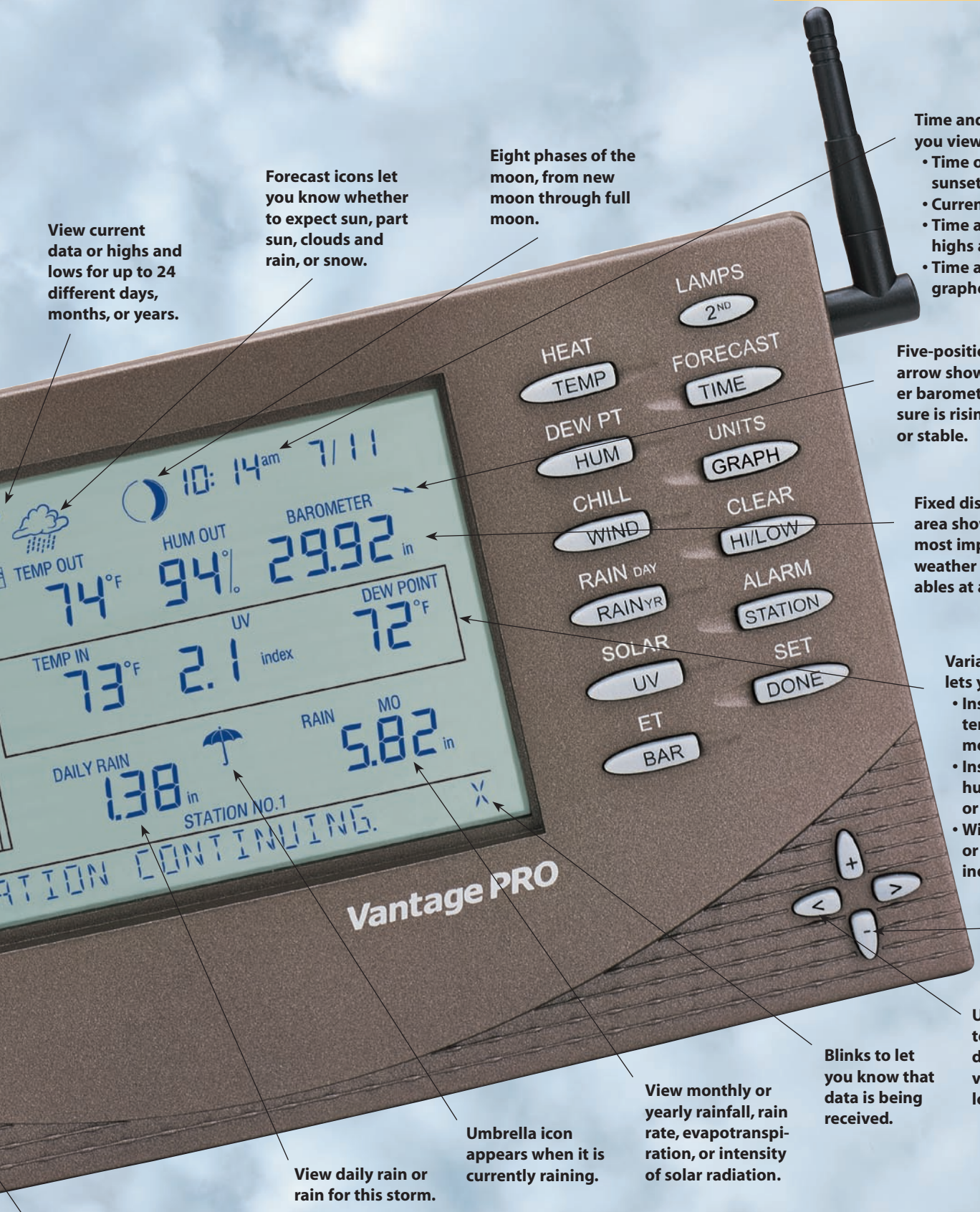

Graph icon shows which function is currently being displayed on the graph.
Inside compass rose, view wind direction to 1° resolution. Or view wind speed.
Compass rose with 16 compass points shows current and dominant wind direction.
Set over 70 alarms for multiple functions simultaneously. Alarm bell indicates that alarm is set.
Graph last 24 hours, days, or months of readings or highs and lows. View over 80 graphs including additional analysis of temperature, rain, rain rate, wind, and barometric pressure. All without a computer!
Vertical scale changes depending on what you are graphing.
DAVIS
DAY HIGHS
WIND
N
NE
E
SE
S
SW
W
NW
2
MPH
Every 1 hr
Last 24 hrs
3
Vertical Scale:

Look for the following logos throughout the catalog:

DAVIS TALK Identifies items that use our proprietary wireless protocol. Mix and match them to create the system that suits your needs.

NIST Identifies the stations or sensors that are NIST-traceable. See page 19 for details.

Identifies stations suitable for use with GLOBE protocol.



Time and date fields let you view:
- Time of sunrise and sunset
- Current time and date
- Time and date of highs and lows
- Time and date of graphed data point

Eight phases of the moon, from new moon through full moon.

Forecast icons let you know whether to expect sun, part sun, clouds and rain, or snow.

View current data or highs and lows for up to 24 different days, months, or years.

Five-position trend arrow shows whether barometric pressure is rising, falling, or stable.

Fixed display area shows the most important weather variables at all times.

Variable display area lets you pick between:
- Inside or additional temperatures or soil moisture
- Inside or additional humidity, UV index, or leaf wetness
- Wind chill, dew point, or two different heat indices

Plus and minus keys simplify data entry.

Use arrow keys to scroll through data on graph or view highs and lows over time.

Blinks to let you know that data is being received.

View monthly or yearly rainfall, rain rate, evapotranspiration, or intensity of solar radiation.

Umbrella icon appears when it is currently raining.

View daily rain or rain for this storm.

Ticker-tape display shows expanded forecast details and additional information on current conditions. Over 100 different messages!

Optional sensors or stations are required to view additional temperatures or humidities, soil moisture, UV index, solar radiation, and evapotranspiration.

Vantage Pro

Vantage Pro® weather stations are available in both wireless and cabled versions. All include our innovative integrated sensor suite, which combines our rain collector, temperature and humidity sensors, and anemometer all into one package—making setup easier than ever and improving performance and reliability. Customize your weather station by adding consoles or one or more of the special-purpose stations shown on the following pages. Up to eight wireless transmitters may report to a single console. *Because regulations vary, wireless stations may not be available outside the USA.*

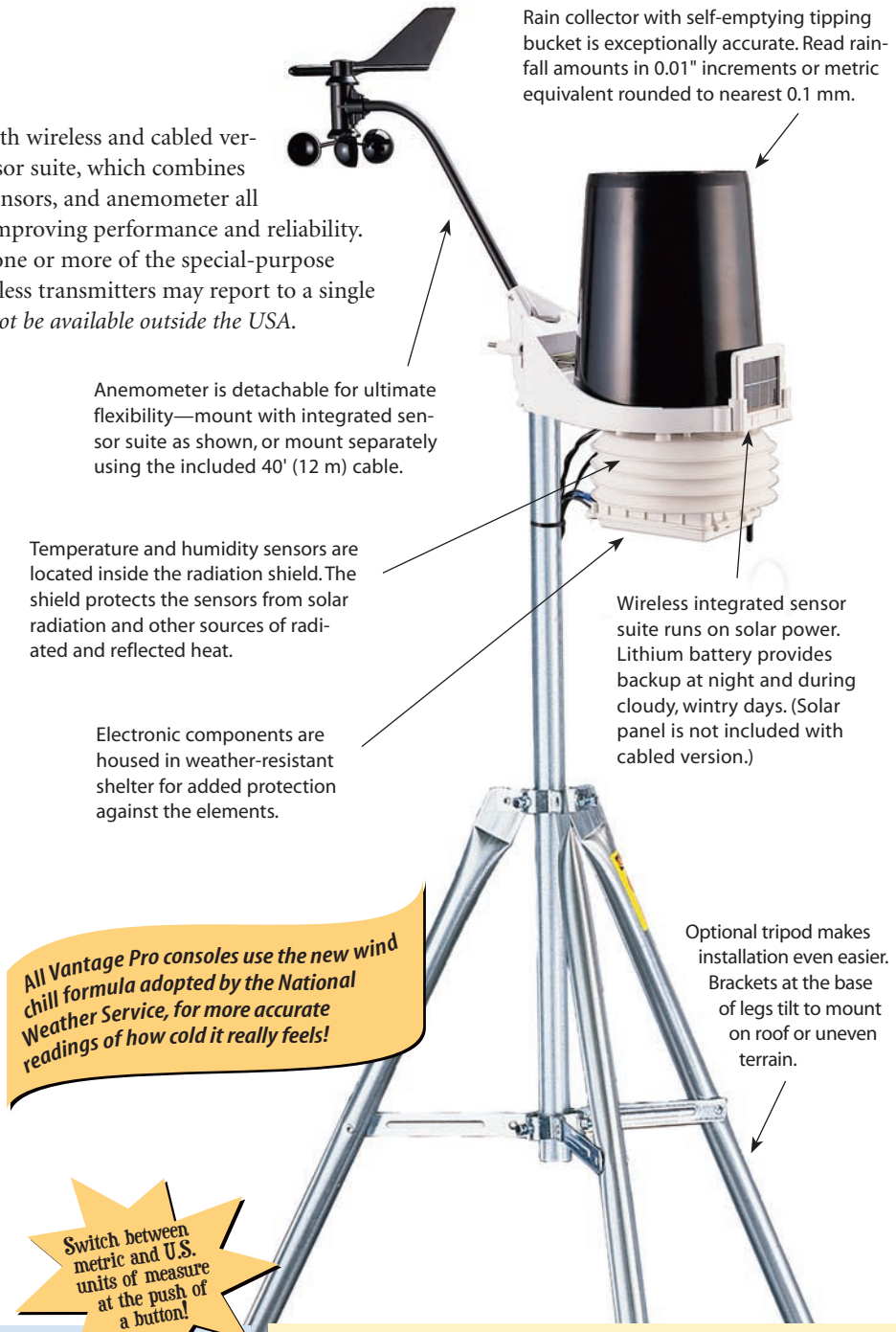
Flexible mounting options let you customize the installation to suit your needs.

Use our optional tripod to mount the integrated sensor suite on a rooftop . . .

. . . or in a field, with or without the console inside our Complete System Shelter.

Separate the anemometer from the rain collector to mount it on a fence post up to 40' (12 m) away. . .

. . . or even further with optional Anemometer Transmitter Kit.



Rain collector with self-emptying tipping bucket is exceptionally accurate. Read rainfall amounts in 0.01" increments or metric equivalent rounded to nearest 0.1 mm.

Anemometer is detachable for ultimate flexibility—mount with integrated sensor suite as shown, or mount separately using the included 40' (12 m) cable.

Temperature and humidity sensors are located inside the radiation shield. The shield protects the sensors from solar radiation and other sources of radiated and reflected heat.

Electronic components are housed in weather-resistant shelter for added protection against the elements.

Wireless integrated sensor suite runs on solar power. Lithium battery provides backup at night and during cloudy, wintry days. (Solar panel is not included with cabled version.)

Optional tripod makes installation even easier. Brackets at the base of legs tilt to mount on roof or uneven terrain.

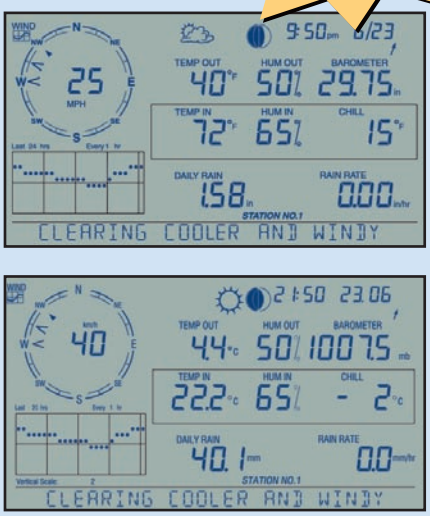
All Vantage Pro consoles use the new wind chill formula adopted by the National Weather Service, for more accurate readings of how cold it really feels!

Switch between metric and U.S. units of measure at the push of a button!

The GLOBE Program

Now, with a new protocol developed just for Davis weather stations, students from grade school through high school can participate in the worldwide GLOBE program by taking and reporting scientifically-valid environmental measurements. For more information on GLOBE, visit our website or www.globe.gov.

GLOBE, The GLOBE Program, and the GLOBE logo are trademarks of the U.S. Government. Use of these trademarks and certification by this company that its products conform to specifications of The GLOBE Program do not imply endorsement of this company or its products by the U.S. Government.



All Vantage Pro stations include:

- Console with AC-power adapter. Wireless console may also be run using three C batteries. Batteries should also be added to cabled console for backup during power outages.
- Integrated sensor suite with rain collector, temperature and humidity sensors, and anemometer.
- 40' (12 m) anemometer cable.
- Mounting hardware.

Vantage Pro Plus stations also include:

- Solar radiation sensor.
- UV radiation sensor.
- Sensor mounting shelf.

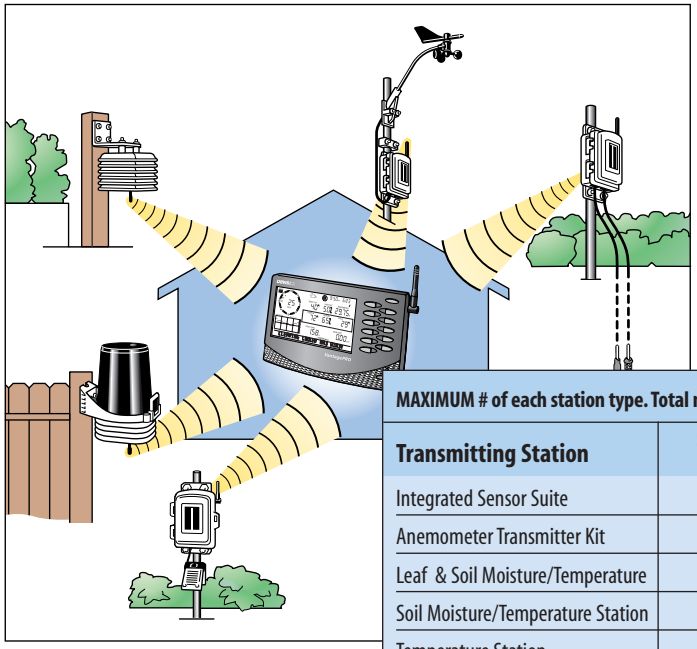
Cabled stations also include:

- 100' (30 m) cable from console to integrated sensor suite.

Wireless stations also include:

- Transmitter (in integrated sensor suite or weather-resistant shelter) and receiver (in console). Range is up to 400' (120 m) outdoors, line of sight. Typical range through walls under most conditions is 75 to 150' (23 to 46 m).
- Solar panel and lithium battery for powering transmitter.

Build your own customized weather station by adding one or more of the special-purpose stations shown on the following pages. Each Vantage Pro console/receiver can receive data from up to eight different transmitting stations. Start with one of our wireless Vantage Pro or Vantage Pro Plus stations (which include both the console and the integrated sensor suite), and add up to seven additional Temperature or Temperature/Humidity Stations. Or buy the Vantage Pro console alone (without the integrated sensor suite), and add up to eight special-purpose stations of your choice.



Each Vantage Pro console/receiver can receive data from up to eight different transmitting stations.

MAXIMUM # of each station type. Total number of stations cannot exceed 8.

Transmitting Station	Shown on Console	Logged by WeatherLink
Integrated Sensor Suite	1	1
Anemometer Transmitter Kit	1	1
Leaf & Soil Moisture/Temperature	1	1
Soil Moisture/Temperature Station	1	1
Temperature Station	8	3*
Temperature/Humidity Station	8	2*

* WeatherLink will log a maximum of 3 Temperature Stations or 1 Temperature Station and 2 Temperature/Humidity Stations.

Use the console on a desk . . .

. . . or mount it on a wall.

See page 19 for extension cables.

Vantage Pro®

Our most popular station. Choose the wireless model for:

- Easiest installation.
- Ability to add additional consoles or special-purpose stations.
- Reduced risk of damage from lightning strikes.

Choose the cabled model for:

- Most economical installation.
- Field installation using our Complete System Shelter.
- Installation in areas with high RF interference.

6150 Wireless Vantage Pro
6150C Cabled Vantage Pro

See page 15 for details on UV and solar radiation sensors.

Vantage Pro® Plus

Includes all the features of Vantage Pro, plus everything you need for reading:

- UV index and dose.
- Solar radiation.
- Evapotranspiration.

UV and solar radiation sensors are pre-installed on sensor mounting shelf.

6160 Wireless Vantage Pro Plus
6160C Cabled Vantage Pro Plus

In side-by-side testing, our radiation shields beat or came close to matching the performance of equivalent models costing as much as seven times more. For details, see our study at www.davisnet.com/links.

Our temperature sensors have an accuracy of ± 1°F (0.5°C), and the accuracy of our outside humidity sensors is ± 3%. In real-life situations, though, solar radiation and the reflected heat from rooftops or pavement can result in greater variances. The radiation shields included with our standard Vantage Pro and Pro Plus models provide considerable protection, but for even better accuracy—especially on warm, sunny days with little or no wind—choose one of our fan-aspirated stations. The motor-driven fan draws air through the sensor chamber and exhausts it through the top of the shield. With this improved air flow comes improved temperature and humidity readings. The effects of radiated and reflected heat are minimized, and conditions inside the radiation shield come as close as possible to the ambient air conditions.

Vantage Pro® & Pro Plus
with 24-Hour Fan-Aspirated Radiation Shield

Includes all the features of the Vantage Pro or Pro Plus station shown on the preceding pages, plus our patented fan-aspirated radiation shield. For the highest possible accuracy, the motor-driven fan draws air through the sensor chamber, 24 hours a day, 7 days a week. Air flow across the sensors is 500 feet per minute (2.5 m/s). At night, when the effects of radiation are less, the solar-powered model runs on battery power and the air flow is 280 feet per minute (1.4 m/s).

DAVIS TALK NIST

6151 Wireless Vantage Pro with Solar-Powered Fan-Aspirated Radiation Shield
6151C Cabled Vantage Pro with AC-Powered Fan-Aspirated Radiation Shield

6161 Wireless Vantage Pro Plus with Solar-Powered Fan-Aspirated Radiation Shield
6161C Cabled Vantage Pro Plus with AC-Powered Fan-Aspirated Radiation Shield

New!

Daytime Fan-Aspirated Radiation Shield Kit

An economical solution for adding the benefits of fan aspiration to your wireless or cabled Vantage Pro or Pro Plus. Half the cost of our other fan-aspirated radiation shields, but nearly 75% as effective in reducing the effects of daytime radiation. Solar-powered fan runs during the day. Since there is no backup battery, the fan will cease running when night falls and the effects of radiation are less. Kit includes fan, solar panel, additional radiation shield plates, and hardware, as shown in inset photo. Larger photo shows the kit as installed on a wireless Vantage Pro. For use with later-model Vantage Pro or Pro Plus stations with round radiation shield plates; not for use with earlier models with rectangular plates.

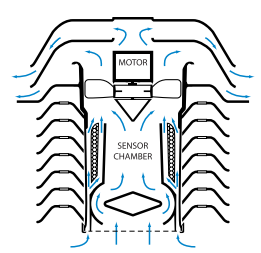
7745 Daytime Fan-Aspirated Radiation Shield Kit

Wireless Temperature/Humidity Station with 24-Hour Fan-Aspirated Radiation Shield

Solar-powered station includes temperature and humidity sensors inside fan-aspirated radiation shield. Electronic components and battery are housed inside weather-resistant shelter for added protection against the elements. To view the data, add a wireless Vantage Pro console/receiver, Weather Echo or Echo Plus, or Weather Envoy and WeatherLink.

DAVIS TALK NIST

6385 Wireless Temperature/Humidity Station
with Fan-Aspirated Radiation Shield



24-Hour Fan-Aspirated Radiation Shield

Motor-driven fan draws air through the sensor chamber.

"Sending kudos regarding your radiation shield. I bought a competing company's wireless station a year and a half ago. The large problem I had with the station was that I could not get any type of precision in measuring the ambient outside temp. After a summer of moving the sensor here and there, I was still left scratching my head at the data most of the time. With your radiation shield I've been collecting consistent, believable temps throughout the fall months. Thank you for a product that does what is advertised."

Ethan, Carson City, NV

Wireless
Leaf & Soil Moisture/Temperature Station

Solar-powered station includes transmitter and battery inside weather-resistant shelter. Sensors are not included; you add the ones you need to match your specific requirements. Add up to 2 leaf wetness sensors, 3 soil moisture sensors, and/or 3 temperature probes. To view the data, add a wireless Vantage Pro console/receiver or Weather Envoy and WeatherLink.

DAVIS TALK NIST

6343 Wireless Leaf & Soil Moisture/Temperature Station

Wireless
Soil Moisture/Temperature Station

Solar-powered station includes transmitter and battery inside weather-resistant shelter. Includes one Watermark® soil moisture sensor and one stainless steel temperature probe. Add up to 3 more of each, for a total of 4 soil moisture sensors and 4 temperature probes. To view the data, add a wireless Vantage Pro console/receiver or Weather Envoy and WeatherLink.

DAVIS TALK NIST

For teachers participating in the GLOBE program, see the special protocol developed for this station at www.globe.gov, or visit our website at www.davisnet.com/links.

6361 Wireless Soil Moisture/Temperature Station

Wireless
Temperature/Humidity Station
with Standard Radiation Shield

Battery-powered station includes temperature and humidity sensors, transmitter, and lithium battery inside protective radiation shield. Battery lasts up to one year under normal conditions. To view the data, add a wireless Vantage Pro console/receiver, Weather Echo or Echo Plus, or Weather Envoy and WeatherLink.

DAVIS TALK NIST

6380 Wireless Temperature/Humidity Station
with Standard Radiation Shield

Wireless
Temperature Station

Battery-powered station includes stainless steel temperature probe with 12' (2.6 m) cable, transmitter and battery inside weather-resistant shelter, and mounting hardware. To view the data, add a wireless Vantage Pro console/receiver, Weather Echo or Echo Plus, or Weather Envoy and WeatherLink. Battery lasts up to one year under normal conditions.

DAVIS TALK NIST

6370 Wireless Temperature Station

Leaf Wetness Sensor

Use to monitor the level of surface moisture on foliage, with range from 0 (completely dry) to 15 (saturated). Add up to 2 sensors to a single Wireless Leaf & Soil Moisture/Temperature Station. Includes 40' (12 m) cable.

6420 Leaf Wetness Sensor

Soil Moisture Sensor

Watermark® soil moisture sensor uses electrical resistance to measure the moisture level of the soil. Does not require periodic maintenance during the growing season. Simply bury at the desired depth, then monitor moisture levels throughout the season. Add up to 3 sensors to a single Leaf & Soil Moisture/Temperature Station or Soil Moisture/Temperature Station. Includes 15' (4.6 m) cable.

6440 Soil Moisture Sensor

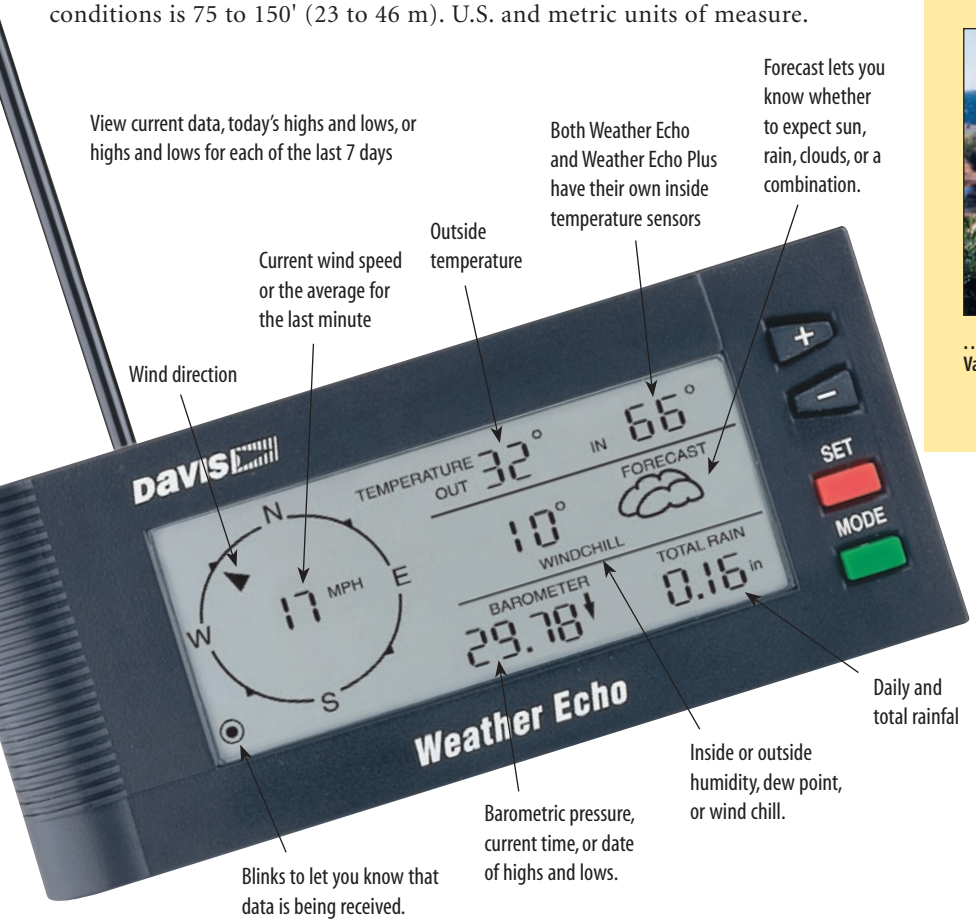
Stainless Steel Temperature Probe

Multi-purpose temperature probe with 2 1/2" (64 mm)-long stainless steel housing. Use to measure temperature of air, soil, or water. Add up 3 probes to a single Leaf & Soil Moisture/Temperature Station or Soil Moisture/Temperature Station. Includes 15' (4.6 m) direct-burial cable.

6470 Stainless Steel Temperature Probe

Vantage Pro Options

Wireless Weather Echo and Echo Plus receive and display data from any of our wireless transmitters. Compact design fits easily on desk, countertop, or table—even in your shirt pocket. Selectable ID code matches one of eight possible transmitting stations. Change the code to display data from a different transmitter, or add additional Weather Echos or Echo Pluses to display data from more than one transmitter. Range is up to 400' (120 m) outdoors, line of sight. Typical range through walls under most conditions is 75 to 150' (23 to 46 m). U.S. and metric units of measure.


View current data, today's highs and lows, or highs and lows for each of the last 7 days
Both Weather Echo and Weather Echo Plus have their own inside temperature sensors
Forecast lets you know whether to expect sun, rain, clouds, or a combination.
Outside temperature
Current wind speed or the average for the last minute
Wind direction
Daily and total rainfal
Inside or outside humidity, dew point, or wind chill.
Barometric pressure, current time, or date of highs and lows.
Blinks to let you know that data is being received.
Davis
TEMPERATURE OUT 32°
IN 66°
FORECAST
10°
WINDCHILL
TOTAL RAIN 0.16 in
BAROMETER 29.78
17 MPH
N
E
S
W
SET
MODE
Weather Echo

Receive data directly from Vantage Pro integrated sensor suite . . . .

. . . or retransmit from wireless Vantage Pro console/receiver.

Weather Echo™

Includes console with inside temperature sensor, adjustable stand for use on desk or shelf, wall-mount bracket, and three-volt lithium battery. Battery lasts up to one year under normal conditions.

7602 Weather Echo

Weather Echo Plus™

Includes all the features of Weather Echo plus backlit display for easy viewing and inside humidity sensor. AC-power adapter allows continuous use of backlighting.

7603 Weather Echo Plus

Anemometer Transmitter Kit

Solar-powered kit for use with wireless Vantage Pro or Vantage Pro Plus. Allows you to locate the anemometer independently from the rain collector, up to 400' (120 m) away from the console/receiver. For longer distances, add one or more wireless repeaters. Kit includes transmitter inside weather-resistant shelter, solar panel, battery, and mounting hardware.

6330 Anemometer Transmitter Kit

Solar Powered

AC-Powered

Wireless Repeaters

For longer distances or to improve reception in troublesome areas, add one or more wireless repeaters. Range is up to 400' (120 m) outdoors, line of sight. Typical range through walls under most conditions is 75 to 150' (23 to 46 m). Use up to eight repeaters with a single wireless station, or form a network of weather stations by linking eight repeaters to eight different wireless stations. AC-powered model includes power adapter. Solar-powered model includes solar panel, regulator circuit, and rechargeable battery.

7624 Wireless Repeater, AC-Powered
7625 Wireless Repeater, Solar-Powered

Receive data from a Vantage Pro integrated sensor suite or special-purpose station, and post it to your computer—no console required! Weather Envoy, when used along with WeatherLink, will collect and store data from the outdoor sensors. Download to your computer at your convenience, then use the WeatherLink software to view current conditions, graph and chart historical data, or even create your own weather web pages.

Shown with WeatherLink data logger installed.

Weather Envoy™

Weather Envoy includes its own barometer and inside temperature and humidity sensors. Both the wireless and cabled versions include an AC-power adapter. Either may also be run using one of our solar power kits. The wireless model may also be run using three AAA batteries. Batteries will last up to six months, depending on the logging interval. Batteries should also be added to the cabled model for backup during power outages.

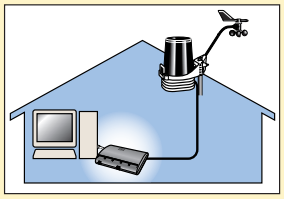
6314 Wireless Weather Envoy
6314C Cabled Weather Envoy

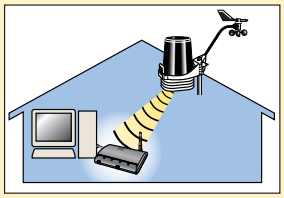
DAVIS TALK NIST

Requires WeatherLink data logger and software package (not included).

Receive data directly from the outdoor sensors—no console required!

Install wireless or cabled Weather Envoy in your home or office, next to your computer for easy and convenient downloading.


Cabled Home/Office Station


Wireless Home/Office Station

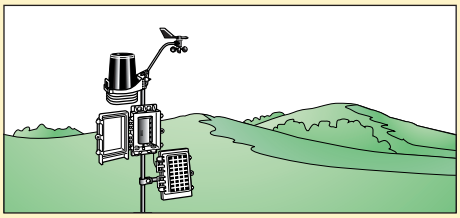
A cabled Weather Envoy can be used with ONE of the following:

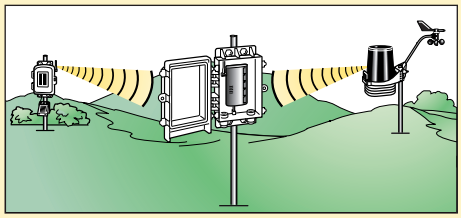
- Cabled Integrated Sensor Suite, or
- Cabled Integrated Sensor Suite Plus

A wireless Weather Envoy can be used with ALL of the following:

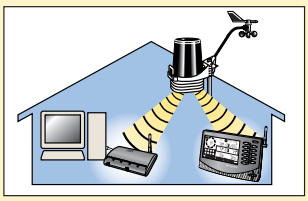
- One wireless Integrated Sensor Suite or Integrated Sensor Suite Plus
- One Anemometer Transmitter Kit
- One Leaf & Soil Moisture/Temperature Station or one Soil Moisture/Temperature Station
- Three Temperature Stations or one Temperature Station and two Temperature/Humidity Stations.

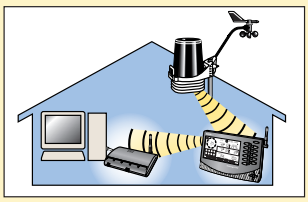
Use Weather Envoy with a wireless or cabled field station.

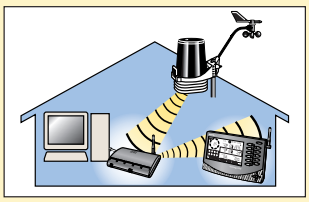

Cabled Field Station.
With Multi-Purpose Shelter and 7707 Solar Power Kit.


Wireless Field Station.
Run on batteries or add our 6610 Solar Power Kit.

Or use in addition to a wireless Vantage Pro console/receiver.


Transmit to Both Simultaneously


Retransmit Data to Weather Envoy


Retransmit from Weather Envoy

6325 with Standard Radiation Shield

Integrated Sensor Suite

For use with Weather Envoy and WeatherLink. Includes all the features of the Vantage Pro or Pro Plus integrated sensor suites shown on pages 4-6. Tripod not included.

DAVIS TALK NIST

Wireless Integrated Sensor Suite
6320 with Standard Radiation Shield
6321 with Solar-Powered Fan-Aspirated Radiation Shield

Cabled Integrated Sensor Suite
6320C with Standard Radiation Shield
6321C with AC-Powered Fan-Aspirated Radiation Shield

Wireless Integrated Sensor Suite Plus
6325 with Standard Radiation Shield
6326 with Solar-Powered Fan-Aspirated Radiation Shield

Cabled Integrated Sensor Suite Plus
6325C with Standard Radiation Shield
6326C with AC-Powered Fan-Aspirated Radiation Shield

Vantage Pro Console/Receiver

To view data from a wireless Vantage Pro station in additional locations, or for use with any of the special-purpose wireless stations shown on the previous pages. Includes all the features shown on pages 2-3.

DAVIS TALK NIST

6310 Vantage Pro Console/Receiver

GroWeather & Perception II

Our GroWeather stations provide a wealth of special-purpose information related to agricultural needs. Using the information from GroWeather, you can:

- Conserve water resources by irrigating at optimal times.
- Optimize the timing of planting, fertilizing, pesticide application, and harvesting.
- Keep an eye on the level of heat stress on workers and livestock.
- Monitor the potential fire hazard due to temperature and wind conditions along with the moisture loss of nearby vegetation.

For a customized station designed to suit your needs, add our GroWeatherLink computer interface package or any of the sensor and mounting options described on the pages to follow.

GroWeather®

Includes console, AC-power adapter, and sensor interface module. Optional sensors let you build your own customized system. To monitor conditions at a field site, add a radio or cell phone modem and a GroWeatherLink/ET Data Logger. To modify irrigation scheduling according to real-time ET data, add our Alarm Output Module.

7450 GroWeather

NIST

For these special GroWeather functions:	Add these optional sensors:
Evapotranspiration	ET Data Logger, Anemometer, Solar Radiation Sensor, and Temperature/Humidity Sensor
Growing degree-days with user-settable thresholds	Temperature or Temperature/Humidity Sensor
Soil temperature in addition to air temperature *	A second Temperature Sensor or Probe
Surface moisture on foliage *	Leaf Wetness Sensor
Apparent temperature (temperature-humidity index)	Temperature/Humidity Sensor

** Soil temperature and leaf wetness use the same port. To measure both, switch from one sensor to the other as needed. Measure soil temperature to determine the proper time for planting, then switch to the Leaf Wetness Sensor for the rest of the year.*

EZ-Mount GroWeather®

Includes everything found on our basic GroWeather, plus ET data logger and all optional sensors. Sensors are pre-assembled on a galvanized steel mounting pole. Radiation shield protects temperature/humidity sensor from solar radiation and other sources of radiated and reflected heat. Weather-resistant shelter protects the sensor interface module from the elements. Locate the console inside the shelter, or run the included 100' (30 m) cable to locate the console indoors. See page 16 for optional Solar Power Kit and Mounting Tripod.

NIST

7450EZ EZ-Mount GroWeather

Includes 0.01" Rain Collector. Add the suffix M for 0.2 mm Rain Collector.

Alarm Output Module

To send signals to automatically start or stop external devices such as irrigation systems, heaters, or fans, add our Alarm Output Module. The Alarm Output Module can directly control devices such as irrigation controllers and thermostats. To switch power to heaters, motors, or other high-power equipment, you will need to add electrical relays (not available from Davis Instruments). For complete details, ask for a copy of our supplement on the Alarm Output Module.

7736 Alarm Output Module

By adding the Alarm Output Module to GroWeather you can:

- Select up to four alarm conditions for output.
- Select high and low alarms for the same weather parameter.
- Select alarms from two different weather parameters.

By adding GroWeatherLink you can also:

- Turn remote devices on or off from your keyboard.
- Write your own software program to turn devices on or off.
- Switch power to a radio on and off to conserve energy.

Perception II®

An indoor weather station requiring no installation—just plug it in using the included AC-power adapter. Use to monitor your wine cellar, greenhouse, or other climate-dependent area. Measures temperature, humidity, and barometric pressure. So accurate, it's even used by automobile racers to tune their carburetors for current air density conditions. Backlit display for easy viewing.

7400 Perception II

NIST

Our Weather Wizard III and Weather Monitor II offer sophisticated, professional quality for home, business, or scientific use. Add WeatherLink for detailed, long-term analysis using your PC, and you'll have a powerful computer weather station at a surprisingly affordable price.

See pages 14–15 for details on optional sensors.

Weather Monitor II®

A full-featured weather station. Basic model includes barometric pressure, inside and outside temperature, inside humidity, wind speed and direction, and wind chill. With the complete station, you'll also get outside humidity, dew point, and daily and accumulated rainfall.

7440 Weather Monitor II

7440CS Complete Weather Monitor II
Includes 0.01" rain collector. Add the suffix M for 0.2 mm rain collector.

NIST ®

See page 19 for extension cables.

Weather Wizard III®

The most-requested features at an economical price. Basic model includes inside and outside temperature, wind speed and direction, and wind chill. With the complete station, you'll also get daily and accumulated rainfall.

7425 Weather Wizard III

7425CS Complete Weather Wizard III
Includes 0.01" rain collector. Add the suffix M for 0.2 mm rain collector.

NIST ®

Protected Junction Box

Provides upgraded protection against the electrical disturbances that can come through sensor cables, including radio frequency interference, electrostatic discharges, and voltage surges. Includes two 16' (5 m) ground wires. For use with Weather Monitor II or Weather Wizard III only. For GroWeather, equivalent protection is already provided by the sensor interface module.

7740 Protected Junction Box

Choose the station that suits your needs	Perception II	Weather Wizard III	Complete Weather Wizard III	Weather Monitor II	Complete Weather Monitor II	GroWeather	EZ-Mount GroWeather
Barometric Pressure	•			•	•	•	•
Inside Temperature	•	•	•	•	•		
Outside Temperature		•	•	•	•	Optional	•
Soil or Water Temperature						Optional	•
Wind Direction		•	•	•	•	Optional	•
Wind Speed		•	•	•	•	Optional	•
Wind Chill		•	•	•	•	Optional	•
Wind Run						Optional	•
Rainfall		Optional	•	Optional	•	Optional	•
Inside Humidity	•			•	•		
Outside Humidity				Optional	•	Optional	•
Dew Point				Optional	•	Optional	•
Temperature-Humidity Index						Optional	•
Evapotranspiration						Optional	•
Growing Degree-Days						Optional	•
Leaf Wetness						Optional	•
Solar Radiation Intensity						Optional	•
Solar Energy						Optional	•

All stations include the following features:

- Time in 12- or 24-hour format and date.
- U.S. and metric units of measure.
- Highs and lows.
- Sequential scan and display of readings.
- Alarms for selected functions.
- Calibration of some functions for increased accuracy under difficult conditions.

All stations include the following components:

- Console with reversible base for use on desk, shelf, or wall.
- Backlighting of LCD display for easy viewing (except Weather Wizard III).
- AC-power adapter with battery backup (battery not included).
- Quick and easy plug-in cable connections using modular RJ connectors like those found on your telephone.

Wizard & Monitor stations also include:

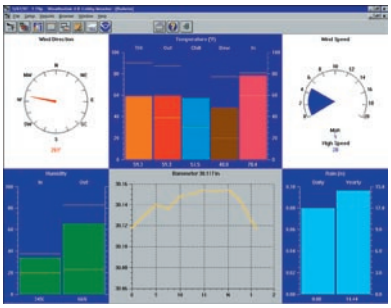
- Junction box with 8' (2.4 m) cable to connect sensor cables to console.

GroWeather stations also include:

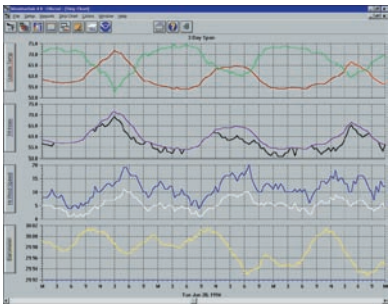
- Sensor interface module with 16' (5 m) ground wire and 8' (2.4 m) cable to connect sensor cables to console. Provides increased protection against radio frequency interference, electrostatic discharges, and voltage surges.

Computer Interfaces

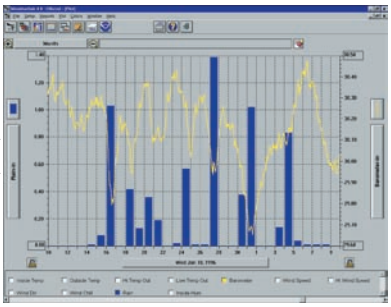
For the ultimate in weather monitoring, add WeatherLink to any of our weather stations. The data logger fits neatly into the weather station console or Weather Envoy, storing weather data even when it's not connected to your PC. Later, download the data and use the software for detailed analysis and graphing.



See current conditions at a glance on the instant weather bulletin.



Graph data on a daily, weekly, or yearly basis.



View multiple weather variables at the same time to see their relationships.

Actual screens may vary.

New Features

Our latest versions of WeatherLink include a host of new and improved features.

- **Weather Forecast.** Lets you know what to expect, with quick-view icons for the forecast at a glance and text messages for expanded details.
- **Moon Phase.** With eight phases of the moon, from new moon through full moon.
- **Updated Wind Chill.** Uses the new formula adopted by the National Weather Service which incorporates modern heat transfer theory and a lower calm wind threshold.

Sharing Your Weather Data

WeatherLink makes it easy for you to participate in a number of worthwhile programs including:

- **The Citizen Weather Observer Program.** Your data, submitted via APRS or the Internet, can help the National Weather Service develop improved weather prediction models. See www.wxqa.com.
- **The GLOBE Program.** An international weather-related science program for students from elementary through high school, supported by NASA and NSF. See www.globe.gov.
- **The Weather Underground.** Submit your data via the Internet, and it will appear whenever anybody checks the forecast for your zip code. See www.wunderground.com.
- **Weather World 'Round.** Send your URL to news@davisnet.com and we'll add it to our growing list of Davis stations around the world. See www.davisnet.com/links.

In Salt Point, New York, the whole family enjoys watching the weather—including daughter Cheryl, age 10.

Expanded Reporting

- **Expanded Temperature Reporting.** Heating degree days, cooling degree days, and fuel-oil demand.
- **Optional Sensor Reporting.** Evapotranspiration, leaf wetness, soil moisture, soil temperature, sunburn risk for each skin type, and solar energy.
- **Weather Watcher Reports** in NOAA National Climatic Data Center format.

Vantage Pro Data Logger

Weather Website

Create your own weather website or post weather conditions to a LAN. Use our included HTML templates or design your own. Add graphs, text lines, or scrolling ticker tapes, and upload other files (such as images from a webcam) along with your weather data.

Data Storage & Transfer

- Choose a storage interval of 1, 5, 10, 15, 30, 60, or 120 minutes.
- Store up to 6 months of data before downloading, depending on the storage interval. (Up to 4 months for Perception, Wizard, or Monitor; up to 85 days for GroWeather.)
- Download automatically every day, or download manually whenever you like.
- Export data to most popular spreadsheet, database, and word processing programs.

Agricultural/Turf Management Module

Optional software module adds specialized reports for farmers, growers, and turf managers. With a user-defined 24-hour period and growing season, you can track the weather according to your needs, not the calendar's. You'll get evapotranspiration, chilling requirement, leaf wetness hours, and soil temperature hours—all with user-entered thresholds and starting and ending dates. Plus growing degree-days and temperature-humidity hours (with user-entered names of crops, pests, or diseases) and crop water management (with irrigation values and user-entered K-factor profiles). For use with WeatherLink models 6510C or 7862. Some reports require the use of optional sensors. For owners of GroWeather who wish to upgrade to Vantage Pro, includes the ability to import files from GroWeatherLink.

6511 Agricultural/Turf Management Module

On his 1400-acre corn and soybean farm in Iowa, Al Schafbuch uses WeatherLink to track degree days and rainfall.

New!

E-Mail/Phone Alert Module

Be alerted whenever conditions approach critical—24 hours a day, 7 days a week. Choose e-mail for detailed information on alarm conditions, plus regularly scheduled updates on current weather conditions. Or choose the phone alert, with a special alarm tone alerting you to check your weather station or WeatherLink for more details. (Because systems vary, the phone alert may not work outside the USA). Optional software module for use with WeatherLink models 6510C or 7862.

6512 E-Mail/Phone Alert Module

Match your weather station to one of these versions of WeatherLink.

Although the 6510C and 7862 software features are identical, the data loggers are different and are not interchangeable. The software for the Mac versions and GroWeatherLink vary somewhat; see the sidebar on the right.

For Windows	For Mac	Windows versions require Windows 95/98/ME/NT4.0/XP/2000, at least 5MB free hard disk space, 4MB RAM, one free serial port, and CD-ROM. Mac versions require Mac OS X v 10.1 or above and USB serial adapter.	Wireless Vantage Pro 6150, 6151, 6160, and 6161	Wireless Console/Receiver 6310	Wireless Weather Envoy 6314	Cabled Vantage Pro 6150C, 6151C, 6160C, and 6161C	Cabled Weather Envoy 6314C	Perception II 7400	Weather Wizard III 7425 and 7425CS	Weather Monitor II 7440 and 7440CS	GroWeather 7450 and 7450EZ
6510C	6520C	**WeatherLink for Vantage Pro**	•	•	•	•	•				
6510X	6520X	**Extra User License Kit** for WeatherLink for Vantage Pro	•	•	•	•	•				
7862	7855	**WeatherLink for Perception, Wizard, or Monitor**						•	•	•	
7862X	7855X	**Extra User License Kit** for WeatherLink for Perception, Wizard, or Monitor						•	•	•	
7871H		**GroWeatherLink/ET Data Logger** (included with 7450EZ)									•
7871S		**GroWeatherLink Software** English-Language Version									•
7871PS		**GroWeatherLink Software** Portuguese/Spanish Version									•
7871X		**Extra User License Kit** for GroWeatherLink									•

All versions include:
- Software on CD (except 3½" disk for GroWeatherLink).
- Data logger (sold separately for GroWeatherLink).
- 8' (2.4 m) cable to connect the data logger to your computer.

Multiple stations: Track multiple stations on the same computer using one WeatherLink for each station.

Multiple computers: View data from the same weather station on multiple computers using one Extra User License for each computer. Includes license, manual, and software.

Mac versions do NOT include the data sharing, weather website, or other new features listed on the opposite page.

GroWeatherLink includes the agricultural/turf reports sold separately for other WeatherLinks (see 6511 on opposite page). It also includes a phone/pager alert and the weather website features. It does NOT include the features listed under *New Features or Sharing Your Weather Data.*

WeatherLink Downloader

New!

Use to download data from a WeatherLink data logger into your Palm™ Pilot or compatible PDA, for later transfer to your PC. Kit includes 9-pin cable adapter and software on CD. Requires Palm OS 3.5.1 to 4.1 and serial interface. For use with WeatherLink model 6510C only.

6538 WeatherLink Downloader

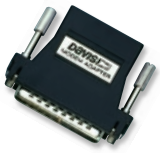
USB to Serial Cable

The WeatherLink data logger connects to a serial port on your PC. To connect to the USB, add our USB-to-Serial Cable. For use with Windows 98/ME/XP/2000 or Mac OS X.

8434 USB to Serial (DB9) Cable

Telephone Modem Adapter

For transmission of data from any of our WeatherLink data loggers using a modem.



Telephone Modem Adapter
6533 for Vantage Pro
7870 for all other stations

Vantage Pro Updater

Take advantage of the latest developments with our Vantage Pro Updater. Simply plug the Updater into the expansion port on your Vantage Pro console (where the WeatherLink data logger plugs in), and press the start button. The console will be automatically updated with the latest version of the firmware. Future updates may be downloaded from our website at no charge.

6311 Vantage Pro Updater

Also available on loan for one-time use at a reduced cost. Contact our Customer Service or Tech Support Department for details.

Link Isolator Kit

For upgraded protection against electrical disturbances, install the Link Isolator between the data logger and your computer. Includes 40' (12 m) cable and power adapter. For use with WeatherLink models 7862 or 7855 only. For other models, equivalent protection is already provided.

7764 Link Isolator Kit

Short-Range Modem Pair

For transmission of data from a WeatherLink data logger over twisted-pair cable. Use for distances up to four miles (6.4 km) over 22-gauge (0.3 mm^2) cable or up to seven miles (11 km) over 19-gauge (0.7 mm^2) cable. Adapter is included; cable is not. Mac users require additional adapter. Not for use with Vantage Pro.

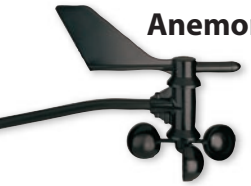
7875 Short-Range Modem Pair
7869 Mac Adapter for 7875

Radio Communication

To access data from remote weather stations without running wires. Choose spread spectrum for distances up to 10 miles (16 km), UHF radio for distances up to 25 miles (40 km), or cellular phone for virtually unlimited range. For complete details, ask for our catalog supplement, *Radio Communication Options*.

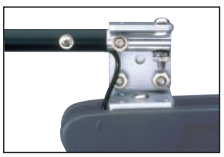
Sensor Options

Anemometer



Includes both wind speed and wind direction sensors. Rugged components stand up to hurricane-force winds, yet are sensitive to the lightest breeze. Wind-tunnel tested to speeds in excess of 170 miles per hour. Sealed stainless steel ball bearings for long life. Comes complete with mounting hardware.

7911 Anemometer for GroWeather
Includes 40' (12 m) cable. Use Standard 4-Conductor Extension Cable. Maximum cable length is 250' (76 m) from anemometer to sensor interface module.
7876-008 Cable, 8' (2.4 m) 7876-100 Cable, 100' (30 m)
7876-040 Cable, 40' (12 m) 7876-200 Cable, 200' (60 m)



Top mount

Side mount

Anemometer Mast Mount

Used for special mounting situations such as sailboat mastheads. Not required for most installations. Brackets attach to virtually any surface—vertical or horizontal, curved or flat—and allow adjustment to level.
7890 Anemometer Mast Mount

Leaf Wetness Sensor

To indicate the presence of surface moisture on foliage with range from 0 to 15.

6420 Leaf Wetness Sensor for Leaf & Soil Moisture/Temperature Station
Includes 40' (12 m) cable. Extension cables may not be used with this station.

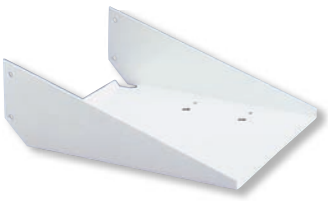
7846 Leaf Wetness Sensor for GroWeather
Includes 40' (12 m) cable. Use Standard 6-Conductor Extension Cable. Maximum cable length is 125' (38 m) from sensor to sensor interface module.
7878-040 Cable, 40' (12 m)

See the "Options & Accessories" chart on page 20 for a complete look at which options may be used with which station.

Rain Collector

Designed to meet the guidelines of the World Meteorological Organization, our self-emptying tipping-bucket design is exceptionally accurate. Choose 0.01" or 0.2 mm increments.

7852 Rain Collector, 0.01" for Wizard, Monitor, or GroWeather
Add the suffix M for 0.2 mm Rain Collector. Includes 40' (12 m) cable. Use Standard 4-Conductor Extension Cable. Maximum cable length is 900' (270 m) from rain collector to Wizard or Monitor console (including junction box cable) or GroWeather sensor interface module.
7876-008 Cable, 8' (2.4 m) 7876-040 Cable, 40' (12 m) 7876-100 Cable, 100' (30 m) 7876-200 Cable, 200' (60 m)



Rain Collector Shelf

Provides a horizontal surface for mounting the Rain Collector. May be used with Sensor Mounting Arm or mounted on other structures or surfaces. Aluminum shelf is white powder coated for added durability.

7704 Rain Collector Shelf

Rain Collector Heater

For use in cold climates to measure freezing rain or the moisture content of snowfall. Requires access to AC power; may not be run using a solar power kit. Includes 24-watt, 24-volt heater with thermal cut-off switch, control unit, insulating reflective blanket, and AC-power adapter.

7720 Rain Collector Heater
Includes 50' (15 m) cable. Use Shielded 4-Conductor Extension Cable. Maximum cable length is 120' (36 m).
7895-050 Cable, 50' (15 m)
7895-100 Cable, 100' (30 m)

Temperature Sensor & Probe

Use to measure air, soil, or water temperature. Sensor features black UV-stabilized plastic sheath. Probe features 2½" (64 mm)-long stainless steel housing.

6470 Temperature Probe for Leaf & Soil Moisture/Temperature Station
Includes 25' (7.6 m) cable. Extension cables may not be used with this station.

7817 Temperature Sensor for Wizard, Monitor, or GroWeather

7818 Temperature Probe for Wizard, Monitor, or GroWeather
Both include 25'(7.6 m) cable. Use Standard 4-Conductor Extension Cable. Maximum cable length is 300' (90 m) from sensor to console (including junction box or sensor interface module cable).
7876-008 Cable, 8' (2.4 m) 7876-100 Cable, 100' (30 m)
7876-040 Cable, 40' (12 m)

Radiation Shield

The most effective passive shelter available. Protects temperature sensor from solar radiation and other sources of radiated and reflected heat. Multi-plate construction for maximum airflow. Assembly required.

7714 Radiation Shield
for Wizard, Monitor, or GroWeather, or for Wireless Temperature Station or Leaf & Soil Moisture/Temperature Station

Solar Radiation Sensor

To measure solar radiation and solar energy. Diffuser element and housing are carefully designed for accurate cosine response. Silicon photo diode provides good match to solar spectrum. Two-piece housing minimizes radiation heating, allows convection cooling of the sensor, and prevents the trapping of water or dust.

6450 Solar Radiation Sensor for Vantage Pro
Includes 3' (0.9 m) cable. Use Standard 4-Conductor Extension Cable. Maximum cable length is 125' (38 m) from sensor to integrated sensor suite.

7821 Solar Radiation Sensor for GroWeather
Includes 40' (12 m) cable. Use Standard 4-Conductor Extension Cable. Maximum cable length is 125' (38 m) from sensor to sensor interface module.

7876-008 Cable, 8' (2.4 m) 7876-040 Cable, 40' (12 m) 7876-100 Cable, 100' (30 m)

UV Sensor

Measures the sunburning portion of the UV spectrum. Allows you to display UV index, dose rate, and daily and accumulated dose. Multi-layer filter provides a spectral response that closely matches the Erythema Action Spectrum. Diffuser provides excellent cosine response. Two-piece housing minimizes radiation heating, allows convection cooling of the sensor, and prevents the trapping of water or dust.

6490 UV Sensor for Vantage Pro
Includes 3' (0.9 m) cable. Use Standard 4-Conductor Extension Cable. Maximum cable length is 125' (38 m) from sensor to integrated sensor suite.

7876-008 Cable, 8' (2.4 m) 7876-040 Cable, 40' (12 m) 7876-100 Cable, 100' (30 m)

Sensor Mounting Shelf

For mounting Vantage Pro UV and/or solar radiation sensors. Powder-coated aluminum shelf with anodized aluminum posts and stainless steel hardware attaches easily to outside of integrated sensor suite.

6672 Sensor Mounting Shelf

Temperature/Humidity Sensor

Measures outside temperature, relative humidity, and dew point. When used with Weather Monitor II, it replaces the external temperature sensor included with the station.

7859 Temperature/Humidity Sensor for Monitor or GroWeather
Includes 40' (12 m) cable. Use Standard 6-Conductor Extension Cable. Maximum cable length is 125' (38 m) from sensor to console (including junction box or sensor interface module cable).
7878-040 Cable, 40' (12 m)

NIST

Meteorologists at Patriot Hills, Antarctica, installed a Davis weather station to keep an eye on conditions at the local airstrip. For more on this story, visit www.thistle.org/ANI/.

Complete System Shelter

To locate your station console and other components outside, at a field or remote location. Weather-resistant NEMA 4X enclosure provides protection from the elements for any of the following:

- Vantage Pro console or console/receiver with WeatherLink data logger.
- Weather Wizard III or Weather Monitor II console with WeatherLink data logger, protected junction box, radio communication option (short-range modem, spread spectrum radio modem, or cellular phone modem), regulator circuit from solar power kit, and 7.0-amp-hour battery.
- GroWeather console with GroWeatherLink data logger, sensor interface module, alarm output module, radio communication option (short-range modem, spread spectrum radio modem, or cellular phone modem), regulator circuit from solar power kit, and 7.0-amp-hour battery.

Measures $15\frac{1}{2}$" × $7\frac{3}{4}$" × $13\frac{1}{2}$" (395 × 195 × 345 mm).

Complete System Shelter with console, sensor interface module, short-range modem, and alarm output module.

7724 Complete System Shelter

Multi-Purpose Shelter

Use to shelter any of the following sub-systems:

- Weather Envoy with WeatherLink data logger.
- Weather Wizard III or Weather Monitor II console with WeatherLink data logger, protected junction box, link isolator, and short-range modem.
- GroWeather console with GroWeatherLink data logger and short-range modem.
- GroWeather sensor interface module with Alarm Output Module.
- Spread spectrum or UHF radio modem with timer.

Measures $3\frac{3}{4}$" × $9\frac{1}{2}$" × $12\frac{1}{2}$" (95 × 240 × 320 mm).

Multi-Purpose Shelter with alarm output module and sensor interface module.

7728 Multi-Purpose Shelter

Sensor Mounting Arm

For use with Weather Wizard III, Weather Monitor II, or GroWeather. Aluminum arm is white powder coated for added durability. Includes mounting hardware and ground wire.

7702 Sensor Mounting Arm

Installation Options

Solar Power Kit
for Wireless Vantage Pro or Wireless Weather Envoy

Powers the wireless console/receiver or Weather Envoy. (Outdoor sensors are powered by the solar panel that is included with the station.) Includes solar panel, regulator circuit, rechargeable battery, and 20' (6 m) cable.

6610 Solar Power Kit for Wireless Vantage Pro

Solar Power Kit
for Cabled Vantage Pro, Cabled Weather Envoy, or EZ-Mount GroWeather

Powers both the console (or Weather Envoy) and the outdoor sensors. Includes solar panel, regulator circuit, rechargeable battery, and 16' (4.9 m) cable. For far northern or southern latitudes or areas with limited sunlight, add the Add-On Solar Panel.

7707 Solar Power Kit for Cabled Vantage Pro or EZ-Mount GroWeather
7705 Add-On Solar Panel

Solar Power Kit
for Standard Weather Wizard III, Weather Monitor II, or GroWeather

Powers both the console and the outdoor sensors. Generates enough power to run the station under most low-light conditions. After one hour of bright sunlight, will supply sufficient energy to run the station for 16 hours in total darkness. Dual-bracket design provides stability in winds up to 140 mph (225 km/hr). Includes 10-watt solar panel, regulator circuit, and battery mounting bracket. Use with our 7.0-Amp Hour Battery or other battery of your choice.

7708 Solar Power Kit for Standard Weather Wizard III, Weather Monitor II, or GroWeather

7.0-Amp-Hour Battery

For use with our 7708 Solar Power Kit. When fully charged, the battery will run the system for eight days at 68°F (20°C) or five days at -4°F (-20°C).

7711 7.0-Amp-Hour Battery

Car/Boat/RV Lighter Cord

For powering any of our weather station consoles or console/receivers. Plugs directly into the cigarette lighter in your car, truck, RV, or boat. Replaces the AC-power adapter that is included with the station. Includes 8' (2.4 m) cable.

6604 Car/Boat/RV Lighter Cord for Vantage Pro
7873 Car/Boat/RV Lighter Cord for Wizard, Monitor, or GroWeather

In Guaymas, Mexico, researchers put together a Davis station that will be used to study the effects of wind and currents in coastal lagoons.

Mounting Tripod

Optional tripod makes installation even easier. Brackets at the base of legs tilt to mount on roof or uneven terrain. Made of galvanized steel. Includes two 36 3/8" (0.92 m)-long poles, which may be used separately or together to make a single 69 3/4" (1.77 m)-long pole.

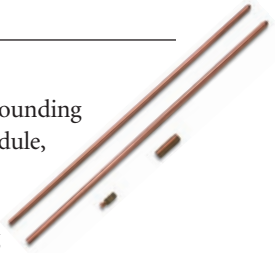
7716 Mounting Tripod

Mounting Pole Kit

Optional Mounting Pole Kit includes two galvanized steel poles, connector, and mounting hardware. Poles measure 19 1/2" (0.50 m) and 21" (0.53 m) long. Assemble the two together to make a single 37 1/2" (0.95 m) long pole. Outside diameter is 1 5/16" (33 mm).

7717 Mounting Pole Kit

Grounding Kit



When suitable ground is not available, use our Grounding Kit with any of the following: sensor interface module, Protected Junction Box, Sensor Mounting Arm, Complete System Shelter, Multi-Purpose Shelter, or Surge Protector Shelters. Includes two 32"-long × 5/8"-diameter (81 cm × 16 mm) copper-clad grounding rods, coupler for joining the two rods together, and wire clamp.

7780 Grounding Kit

Weather Forecasting Card

Discusses the use of wind direction, barometric pressure, and cloud type in predicting the weather. Includes full list of radio weather stations for official broadcasts, plus key information on storm warnings, hurricane avoidance, navigating in fog and other hazardous conditions, and more. Weatherproof high-strength plastic, full color both sides. Punched for binder or bulkhead mounting. Dimensions: 8 1/2" × 11" (216 × 279 mm).

131 Weather Forecasting Card

Surge Protector

For upgraded protection against lightning-induced power surges, power-cross conditions, and ground potential rises, use Surge Protectors with any of our cabled weather stations. For installation on cable runs between:

- Sensor and junction box or sensor interface module.
- Console and junction box or sensor interface module.

Use one surge protector for every two wires. See the chart below to determine the number of surge protectors needed for your installation. Stripping of wires is required. For additional protection options, see our Protected Junction Box (page 11) and Link Isolator Kit (page 13).

7767 Surge Protector

Use 1 Surge Protector for every 2 Wires

Product #	Description	Number of Wires	Number of Surge Protectors
6150C	Cabled Vantage Pro	4	2
6160C	Cabled Vantage Pro Plus	4	2
7911	Anemometer	4	2
7846	Leaf Wetness Sensor	3	1.5
7852	Rain Collector	2	1
7821	Solar Radiation Sensor	3	1.5
7817	Temperature Sensor	2	1
7818	Temperature, Stainless Steel Probe	2	1
7859	Temperature/Humidity Sensor	5	2.5
n/a	Junction Box or Sensor Interface Module	8	4

Surge-Protector Shelters

Weather-resistant shelters for Surge Protectors (sold separately). Small shelter houses up to two Surge Protectors; large shelter houses up to twelve. Includes ground wire. Small shelter measures 3½" × 5¾" × 2¼" (90 × 145 × 55 mm). Large shelter measures 3¾" × 9¼" × 12½" (90 × 235 × 320 mm)

7768 Small Shelter
7769 Large Shelter

WindScribe™

Ultrasonic wind meter uses patented technology to read current wind speed, highest positive speed (headwind), lowest negative speed (tailwind), 5-second average, and running average. Select from mph, km/h, fpm, m/s, f/s, or knots, plus temperature and wind chill in tenths of °F or °C. Sensitive to breezes as low as 0.4 mph, yet withstands winds as high as 150 mph. Includes replaceable 3-volt lithium battery. Battery lasts up to 600 hours. Dimensions: 5" × 3" × ¾" (12.7 × 7.6 × 1.9 cm). Weight: 3½ oz (100 grams).

NIST

276 WindScribe

Use Three Ways

Handheld with adjustable lanyard.

Tripod mount with ¼" thread.

Mounting bracket with Velcro® strap.

Hand-Held Wind Speed Indicators

For instantaneous wind speed readings, where you need them, when you need them. Rugged, high-impact plastic with corrosion-resistant components, protective vinyl case, and attached wrist lanyard.

Wind Wizard™

Reads wind speed in miles/hour, meters/second, and Beaufort. Readout dial is supported on sapphire jewel bearings and steadied by a rare-earth magnetic dampening system. Folding handle quickly and securely latches into place. No batteries needed. Dimensions: 3⅝" × 2⅞" × 1" (92 × 73 × 25 mm) with handle folded. Weight: 2.5 oz (71 g).

281 Wind Wizard

Turbo Meter™

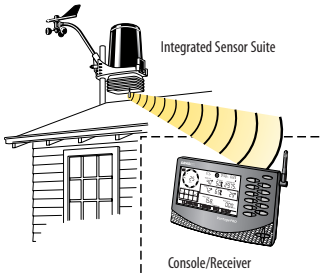
Reads wind speed in miles/hour, knots, feet/minute, or meters/second. Turbine suspended on sapphire jewel bearings responds to the lightest of winds. Three-digit display offers excellent viewing contrast in bright sunlight or at night. Requires three AAA alkaline batteries (not included). Dimensions: 4⅝" × 2⅝" × 1⅛" (118 × 66 × 30 mm). Weight: 3 oz (85 g) not including batteries.

NIST

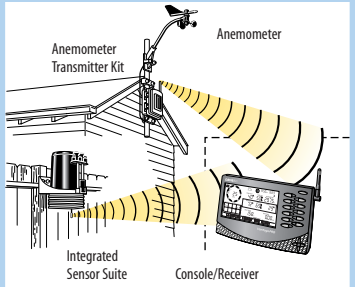
271 Turbo Meter

Installation Diagrams

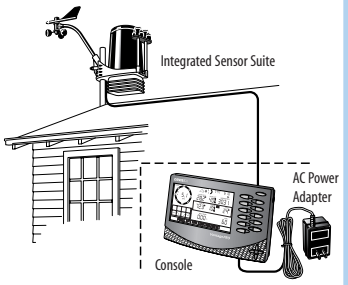
Wireless Vantage Pro



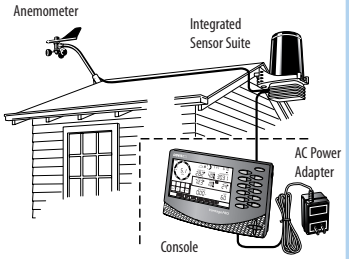
Anemometer Transmitter Kit



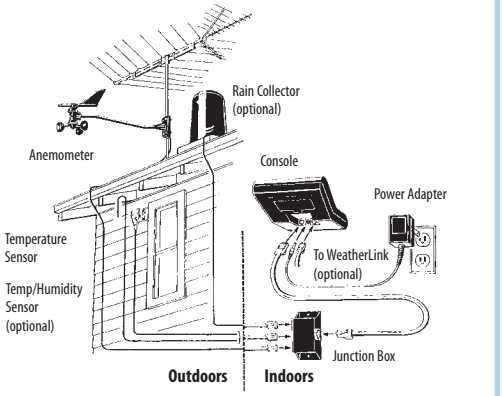
Cabled Vantage Pro Plus



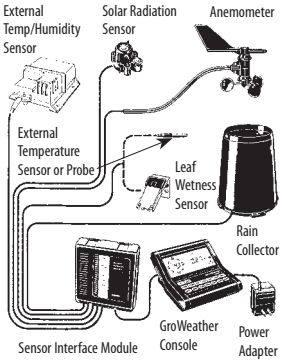
Remote Anemometer



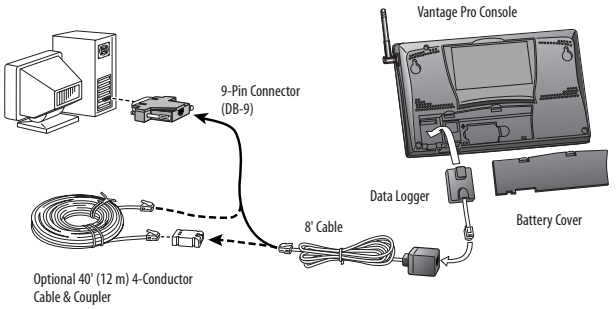
Weather Monitor II Installation



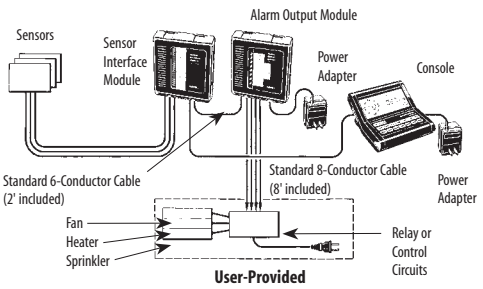
Comprehensive GroWeather System



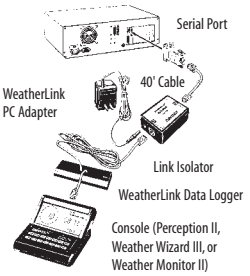
WeatherLink for Vantage Pro



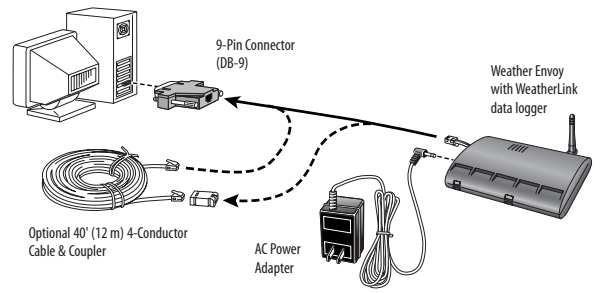
Alarm Output Module at Sensor Interface Module



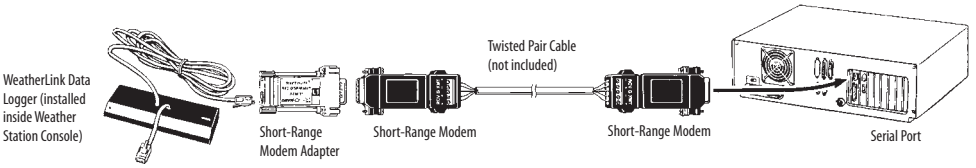
Link Isolator Kit Installation



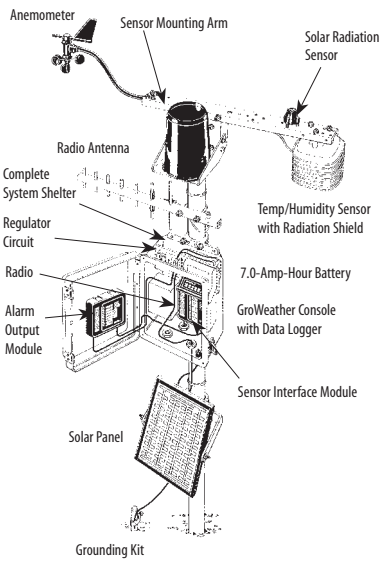
Wireless Weather Envoy


9-Pin Connector (DB-9)
Weather Envoy with WeatherLink data logger
Optional 40' (12 m) 4-Conductor Cable & Coupler
AC Power Adapter

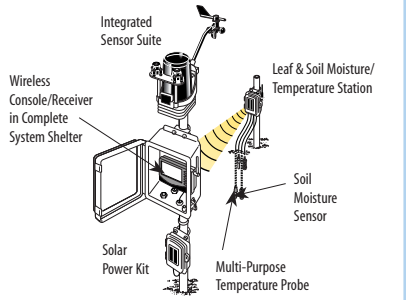
WeatherLink with Short-Range Modem Pair



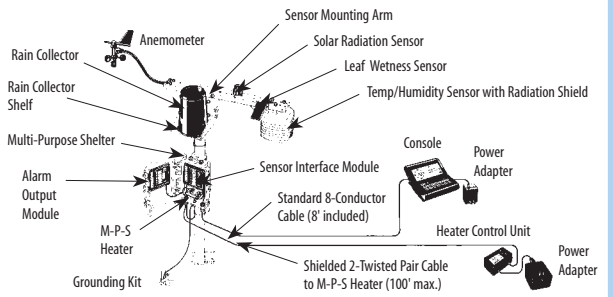
Field System with Solar Power, Radio, and Antenna



Field Station with Solar Power and Soil Moisture


Integrated Sensor Suite
Wireless Console/Receiver in Complete System Shelter
Leaf & Soil Moisture/ Temperature Station
Soil Moisture Sensor
Solar Power Kit
Multi-Purpose Temperature Probe

Field Interface Installation



Extension Cables

Cable Connections

Standard 4- and 6-conductor cables include waterproof coupler kits for joining two cables together, indoors or out. To join standard 8-conductor cables, use an 8-pin cable coupler (for indoor use only). All cables may also be joined using Surge Protectors.

Anemometer

For Wizard and Monitor, maximum wind speed reading decreases as length of cable from anemometer to console (including junction box cable) increases. At 140' (42 m), maximum speed is 175 mph (78 m/s). At 240' (73 m), maximum is 140 mph (62 m/s). At 340' (103 m), maximum is 70 mph (31 m/s). The accuracy of the reading below the maximum is not affected. For GroWeather, maximum cable length is 250' (76 m) from anemometer to sensor interface module. Maximum speed is 175 mph (78 m/s) throughout this length.

	Included Cable Length		Maximum Cable Length	7876-008 Standard 4-Conductor, 8' (2.4 m)	7876-040 Standard 4-Conductor, 40' (12 m)	7876-100 Standard 4-Conductor, 100' (30 m)	7876-200 Standard 4-Conductor, 200' (61 m)	7878-040 Standard 6-Conductor, 40' (12 m)	7880-025 Standard 8-Conductor, 25' (7.5 m)	7880-050 Standard 8-Conductor, 50' (15 m)	7880-100 Standard 8-Conductor, 100' (30 m)	7959 Eight-Pin Cable Coupler	7895-050 Shielded 4-Conductor, 50' (15 m)	7895-100 Shielded 4-Conductor, 100' (30 m)
Vantage Pro	Wireless Vantage Pro	40' (12 m)	540' (165 m) from anemometer to integrated sensor suite.	●	●	●	●							
	Cabled Vantage Pro	40' (12 m)	540' (165 m) from anemometer to integrated sensor suite.	●	●	●	●							
		100' (30 m)	1000' (300 m) from console to integrated sensor suite.	●	●	●	●							
	WeatherLink for Vantage Pro	8' (2.5 m)	48' (14.6 m) from data logger to computer.	●	●									
	Solar Radiation Sensor	3' (0.9 m)	125' (38 m) from solar radiation sensor to integrated sensor suite.	●	●	●								
	UV Sensor	3' (0.9 m)	125' (38 m) from solar radiation sensor to integrated sensor suite.	●	●	●								
Wizard, Monitor, & GroWeather	Weather Wizard III	8' (2.4 m)	125' (38 m) from junction box to console.						●	●	●	●		
	Weather Monitor II	8' (2.4 m)	125' (38 m) from junction box to console.						●	●	●	●		
	Protected Junction Box	None	200' (60 m) from Protected Junction Box to console.						●	●	●	●		
	Remote Display Unit	8' (2.4 m)	200' (60 m) from Protected Junction Box to console.						●	●	●	●		
	WeatherLink Windows or Mac	8' (2.4 m)	50' (15 m) from data logger to computer.	●	●									
	GroWeather	8' (2.4 m)	125' (38 m) from sensor interface module to console.						●	●	●	●		
	Anemometer	40' (12 m)	See note above.	●	●	●	●							
	Leaf Wetness	40' (12 m)	125' (38 m) from sensor to sensor interface module.					●						
	Rain Collector	40' (12 m)	Wizard or Monitor: 900' (270 m) from rain collector to console, including cable from junction box to console. GroWeather: 900' (270 m) from rain collector to sensor interface module.	●	●	●	●							
	Solar Radiation	40' (12 m)	125' (38 m) from sensor to sensor interface module.	●	●	●	●							
	Temperature Sensor	25' (7.6 m)	300' (91 m) from sensor to console, including cable from junction box or sensor interface module to console.	●	●	●	●							
	Temperature Probe	25' (7.6 m)	300' (91 m) from sensor to console, including cable from junction box or sensor interface module to console.	●	●	●	●							
	Temp/Humidity Sensor	40' (12 m)	300' (91 m) from sensor to console, including cable from junction box or sensor interface module to console.					●						
	Rain Collector Heater	50' (15 m)	120' (36 m) from power unit to AC-power adapter. Requires terminal block.										●	●

Anemometers are wind-tunnel tested in our California factory.

NIST-Traceable Sensors

In the USA, the National Institute of Standards & Technology (NIST) develops and maintains the standards of measurement to which all others are ultimately traced. Numerous calibrations, tests, and measurement assurance programs are delivered directly to about 10,000 companies. From these companies, NIST-traceable intermediate service providers are the next link in a network that joins together the makers and users of precision instruments. Davis Instruments is proud to participate in this network. Each of our weather stations is carefully manufactured in our California factory. For those users who require NIST-traceability, certification and recertification of new and previously owned sensors is now available. Call, fax, or e-mail us for complete details.

	Station Dimensions	Inches	Millimeters
Vantage Pro	Console	$9\frac{1}{2} \times 6 \times 1\frac{1}{2}$	240 × 150 × 38
	LCD Display	$6 \times 3\frac{1}{2}$	150 × 90
	ISS: Anemometer Side	$14\frac{1}{2} \times 5\frac{1}{4} \times 17\frac{1}{2}$	370 × 130 × 445
	ISS: Rain Collector Side with Standard Radiation Shield	$11 \times 9 \times 13\frac{1}{2}$	280 × 230 × 340
	ISS: Rain Collector Side with Fan-Aspirated Radiation Shield	13 × 9 × 20	330 × 230 × 510
	Leaf & Soil Moisture/ Temperature Station	$5 \times 2\frac{3}{8} \times 7$	130 × 60 × 180
	Temperature Station	$5 \times 2\frac{3}{8} \times 7$	130 × 60 × 180
	Temperature/Humidity Station with Std Radiation Shield	$8\frac{1}{4} \times 7\frac{1}{4} \times 7\frac{3}{4}$	210 × 185 × 197
	Temp/Humidity Station with Fan-Aspirated Radiation Shield	$9\frac{1}{2} \times 11\frac{3}{4} \times 14$	240 × 300 × 355
Wiz, Mon, Gro	Console	$5\frac{1}{4} \times 5\frac{7}{8} \times 3$	133 × 150 × 76
	LCD Display	$4\frac{3}{4} \times 1\frac{3}{4}$	108 × 45
	Junction Box (Wizard & Monitor)	$3\frac{1}{4} \times 1\frac{7}{8} \times \frac{7}{8}$	82 × 48 × 22
	Sensor Interface Module (GroWeather)	$5\frac{3}{4} \times 5\frac{3}{4} \times 1\frac{1}{4}$	145 × 145 × 32
	EZ-Mount Sensor Array	$18 \times 9\frac{1}{2} \times 33\frac{1}{2}$	457 × 240 × 850

Weather Club E-Newsletter

Interested in learning more about our stations? Sign up for our Weather Club e-newsletter at www.davisnet.com/links. It's chock full of interesting stories, tips on maintenance and installation, and timely reminders. And it's delivered right to your PC every month.

Estimated Current Draw & Battery Life*	Current Draw in milliamperes		Backup Battery Life in Days		80-Amp Car Battery Life at normal temperatures
	lights off	lights on	without data logger	with data logger	
Wireless Vantage Pro Console/Receiver	0.6	80	365	365	> 5 years
Cabled Vantage Pro Console & Sensors	8	88	27	27	14 mo.
Perception II	7	127	2.5	1.0	6 to 9 mo.
Weather Wizard III	6	n/a	3.0	1.5	6 to 9 mo.
Weather Monitor II	7	127	2.5	1.0	6 to 9 mo.
GroWeather	22	140	0.7	0.7	6 to 9 mo

* Actual battery life will vary depending on station setup and usage.

Options & Accessories

		Wireless									Cabled				Cabled							Dimensions	
		6150 Vantage Pro	6151 with Fan-Aspirated Rad Shield	6160 Vantage Pro Plus	6161 with Fan-Aspirated Rad Shield	6343 Leaf & Soil Moisture/Temp	6361 Soil Moisture/Temperature Station	6370 Temperature Station	6380 Temperature/Humidity Station	6385 with Fan-Aspirated Rad Shield	6150C Vantage Pro	6151C w/ Fan-Aspirated Rad Shield	6160C Vantage Pro Plus	6161C w/ Fan-Aspirated Rad Shield	7400 Perception II	7425 Weather Wizard III	7425CS Complete Weather Wizard III	7440 Weather Monitor II	7440CS Complete Weather Monitor II	7450 GroWeather	7450EZ EZ-Mount GroWeather	Inches	Millimeters
Wireless	6310 Vantage Pro Console/Receiver	•	•	•	•	•	•	•	•	•												$9\frac{1}{2} \times 6 \times 1\frac{1}{2}$	240 × 150 × 38
	6314 Wireless Weather Envoy	•	•	•	•	•	•	•	•	•												$5 \times 2\frac{3}{8} \times 7$	130 × 60 × 180
	6330 Anemometer Transmitter Kit	•	•	•	•																	$3\frac{5}{8} \times 6\frac{3}{8} \times 1\frac{1}{8}$	93 × 162 × 30
	7602 Weather Echo	•	•	•	•	•	•	•	•	•												$5\frac{1}{4} \times 2\frac{1}{4} \times \frac{7}{8}$	132 × 57 × 22
	7603 Weather Echo Plus	•	•	•	•	•	•	•	•	•												$5\frac{1}{4} \times 2\frac{1}{4} \times \frac{7}{8}$	132 × 57 × 22
	7624 Wireless Repeater, AC Power	•	•	•	•	•	•	•	•	•												$5 \times 2\frac{3}{8} \times 7$	130 × 60 × 180
	7625 Wireless Repeater, Solar Power	•	•	•	•	•	•	•	•	•												$5 \times 2\frac{3}{8} \times 7$	130 × 60 × 180
Sensors	7911 Anemometer																			•		$18\frac{1}{2} \times 7\frac{1}{2} \times 2\frac{1}{4}$	470 × 190 × 120
	6420 Leaf Wetness Sensor					•																$2 \times 3\frac{1}{2} \times \frac{1}{2}$	50 × 90 × 13
	7846 Leaf Wetness Sensor																			•		$2 \times 3\frac{1}{2} \times \frac{1}{2}$	50 × 90 × 13
	7852 Rain Collector II															•		•		•		$8\frac{3}{4}$ diameter × $9\frac{1}{2}$	165 diameter × 240
	6440 Soil Moisture Sensor					•	•															$\frac{7}{8}$ diameter × 2	22 diameter × 50
	6450 Solar Radiation Sensor	•	•								•	•										$2 \times 2\frac{3}{4} \times 2\frac{1}{4}$	50 × 70 × 57
	7821 Solar Radiation Sensor																			•		$2 \times 2\frac{3}{4} \times 2\frac{1}{4}$	50 × 70 × 57
	6470 Temperature Probe, Stainless					•	•															$\frac{1}{4}$ diameter × 2	6 diameter × 50
	7818 Temperature Probe, Stainless															•	•	•	•	•		$\frac{1}{4}$ diameter × 2	6 diameter × 50
	7817 Temperature Sensor																			•		$\frac{1}{4}$ diameter × $1\frac{1}{4}$	6 diameter × 32
	7859 Temperature/Humidity Sensor																	•		•		$3\frac{1}{2} \times 3\frac{1}{4} \times 1\frac{1}{4}$	90 × 83 × 38
	6490 UV Sensor	•	•								•	•										$2 \times 2\frac{3}{4} \times 2\frac{1}{4}$	50 × 70 × 57
Computer Interface	6510C WeatherLink for Vantage Pro for PC	•	•	•	•	•	•	•	•	•	•	•	•	•								$1\frac{1}{8} \times 1\frac{3}{8} \times \frac{5}{8}$	30 × 35 × 15
	6520C WeatherLink for Vantage Pro for Mac	•	•	•	•	•	•	•	•	•	•	•	•	•								$1\frac{1}{8} \times 1\frac{3}{8} \times \frac{5}{8}$	30 × 35 × 15
	7862 WeatherLink for Windows														•	•	•	•	•			$4\frac{1}{4} \times 1\frac{3}{4} \times \frac{1}{2}$	108 × 45 × 13
	7855 WeatherLink for Mac OS X														•	•	•	•	•			$4\frac{1}{4} \times 1\frac{3}{4} \times \frac{1}{2}$	108 × 45 × 13
	7871H GroWeatherLink/ET Data Logger																			•		$4\frac{1}{4} \times 1\frac{3}{4} \times \frac{1}{2}$	108 × 45 × 13
	7871S GroWeatherLink Software																			•	•	n/a	n/a
	7802 WeatherLink Toolbox														•	•	•	•	•	•	•	n/a	n/a
	7861 WeatherTalker														•	•	•	•	•			$5\frac{1}{2} \times 4\frac{1}{4} \times \frac{3}{4}$	140 × 108 × 20
	7764 Link Isolator Kit														•	•	•	•	•			$3\frac{1}{2} \times 2\frac{1}{2} \times 1$	90 × 65 × 25
	6533 Telephone Modem Adapter	•	•	•	•	•	•	•	•	•	•	•	•	•								$1\frac{3}{4} \times 2\frac{1}{4} \times \frac{1}{2}$	45 × 57 × 13
	7870 Telephone Modem Adapter														•	•	•	•	•	•	•	$1\frac{3}{4} \times 2\frac{1}{4} \times \frac{1}{2}$	45 × 57 × 13
	7875 Short-Range Modem Pair														•	•	•	•	•	•	•	$2\frac{1}{2} \times 1\frac{1}{4} \times \frac{3}{4}$	65 × 32 × 20
Power	6604 Car/Boat/RV Lighter Cord	•	•	•	•						•	•	•	•								$\frac{3}{4}$ diameter × $3\frac{1}{4}$	20 diameter × 83
	7873 Car/Boat/RV Lighter Cord														•	•	•	•	•	•	•	$\frac{3}{4}$ diameter × $3\frac{1}{4}$	20 diameter × 83
	6610 Solar Power Kit	•	•	•	•																	$5 \times 2\frac{3}{8} \times 7$	130 × 60 × 180
	7707 Solar Power Kit										•	•	•	•							•	$3\frac{3}{4} \times 9\frac{1}{2} \times 12\frac{1}{2}$	95 × 240 × 318
	7708 Solar Power Kit														•	•	•	•	•	•		$10\frac{1}{2} \times 16\frac{1}{2} \times 1$	267 × 420 × 25
Installation & Mounting Options	7736 Alarm Output Module																			•	•	$5\frac{3}{4} \times 5\frac{3}{4} \times 1\frac{1}{4}$	145 × 145 × 32
	7890 Anemometer Mast Mount															•	•	•	•	•	•	$3 \times 1\frac{1}{2} \times 1\frac{3}{4}$	75 × 38 × 45
	7780 Grounding Kit															•	•	•	•	•	•	$\frac{5}{8}$ diameter × 64	16 diameter × 1625
	7716 Mounting Tripod	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	30 × 33 × 52	762 × 838 × 1320
	7717 Mounting Pole Kit	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	$\frac{15}{16}$ diameter × $37\frac{1}{2}$	33 diameter × 950
	7740 Protected Junction Box															•	•	•	•			$5\frac{3}{4} \times 5\frac{3}{4} \times 1\frac{1}{4}$	145 × 145 × 32
	7714 Radiation Shield					•	•	•								•	•	•	•	•		$7\frac{1}{2} \times 8\frac{1}{2} \times 6$	190 × 215 × 152
	7704 Rain Collector Shelf															•	•	•	•	•		$10 \times 8\frac{3}{4} \times 3\frac{1}{2}$	255 × 222 × 90
	7720 Rain Collector Heater	•	•	•	•						•	•	•	•		•	•	•	•	•	•	$4 \times 2\frac{1}{4} \times \frac{3}{4}$	102 × 57 × 20
	6672 Sensor Mounting Shelf	•	•								•	•										$2 \times 9 \times \frac{3}{32}$	50 × 228 × 2
	7702 Sensor Mounting Arm															•	•	•	•	•	•	$32 \times 2 \times 7\frac{3}{4}$	813 × 50 × 197
	7767 Surge Protector										•	•	•	•		•	•	•	•	•	•	$1\frac{1}{2} \times 1\frac{1}{2} \times 1\frac{1}{4}$	38 × 38 × 32
	7768 Surge Protector Shelter, Small										•	•	•	•		•	•	•	•	•	•	$3\frac{1}{2} \times 5\frac{3}{4} \times 2\frac{1}{4}$	88 × 145 × 55
	7769 Surge Protector Shelter, Large										•	•	•	•		•	•	•	•	•	•	$3\frac{3}{4} \times 9\frac{1}{4} \times 12\frac{1}{2}$	95 × 235 × 318
	7724 Complete System Shelter	•	•	•	•						•	•	•	•	•	•	•	•	•	•	•	$15\frac{1}{2} \times 7\frac{3}{4} \times 13\frac{1}{2}$	395 × 197 × 343
	7728 Multi-Purpose Shelter														•	•	•	•	•	•	•	$15\frac{1}{2} \times 7\frac{3}{4} \times 13\frac{1}{2}$	395 × 197 × 343
	7745 Daytime Fan-Aspirated Radiation Shield	•		•							•		•										

Sensor Accuracy, Resolution, and Range

Function		Vantage Pro	Perception II	Weather Wizard III	Weather Monitor II	GroWeather	U.S.A. Units			Metric Units		
							Resolution	Range	Accuracy ±	Resolution	Range	Accuracy ±
Agricultural	Evapotranspiration	●				●	0.01"	Day: to 99.99" Month: to 199.99" Year: to 199.99"	5%	Rounded to nearest 0.1 mm from measurement in 0.01" increments	Day: to 999.9 mm Month: to 1999.9 mm Year: to 1999.9 mm	5%
	Growing Degree-Days	❍				●	Day: 0.1 D-Day Avg: 0.1 D-Day Total: 1 D-Day	Day: to 400 D-Days Avg: to 400 D-Days Total: to 19,999 D-Days		Day: 0.1 D-Day Avg: 0.1 D-Day Total: 1 D-Day	Day: to 220 D-Days Avg: to 220 D-Days Total: to 19,999 D-Days	
	Leaf Wetness	●				●	1	0 to 15	0.5	1	0 to 15	0.5
	Soil Moisture	●					1 cb	0 to 200 cb		1 cb	0 to 200 cb	
Barometric Pressure	Barometric Pressure (Elevation range: -1000' to +12,500'; -300 to +3800 m)	✔	✔		✔	✔	0.01" Hg	26" to 32" Hg	0.03" Hg	0.1 mm Hg	660 to 810 mm Hg	0.8 mm Hg
		✔	✔		✔					0.1 mb	880 to 1080 mb	1.0 mb
		✔				✔				0.1 hPa	880 to 1080 hPa	1.0 hPa
	Three-Hour Trend	✔					Slow ≥ 0.02" Hg Rapid ≥ 0.06" Hg	5-Position Arrow		Slow ≥ 0.5 mm (0.7 mb) Rapid ≥ 1.5 mm (2 mb)	5-Position Arrow	
	One-Hour Trend		✔		✔	✔	Change ≥ 0.02" Hg	3-Position Arrow		Change ≥ 5 mm (0.7 mb, 0.7 hPa)	3-Position Arrow	
Humidity	Inside Humidity	✔	✔		✔		1%	10% to 90%	5%	1%	10% to 90%	5%
	Outside Humidity	✔			●	●	1%	0% to 100%	3%	1%	0% to 100%	3%
	Dew Point	✔			●	●	1°F	−105° to +130°F	3°F	1°C	−76° to +54°C	1.5°C
Rainfall	Rainfall	✔					0.01"	Day: 0 to 99.99" Storm: 0 to 99.99" Month: 0 to 199.99" Year: 0 to 199.99"	4%	Rounded to nearest 0.1 mm from measurement in 0.01" increments. At or above 2000 mm, rounded to 1 mm.	Day: 0 to 9999 mm Storm: 0 to 9999 mm Month: 0 to 19,999 mm Year: 0 to 19,999 mm	4%
				●	●	●	0.01"	Day: 0 to 40.95" Total: 0 to 99.99"	4%	0.2 mm	Day: 0 to 819 mm Total: 0 to 9999 mm	4%
	Rate of Rainfall	✔				●	0.01"	0 to 99.99"/hr	5%	Rounded to 0.1 mm	0 to 1999.9 mm/hr	5%
Solar & UV	Solar Radiation	●				●	1 W/m²	0 to 1800 W/m²	5%	1 W/m²	0 to 1800 W/m²	5%
	Solar Energy	❍				●	Console: 0.1 Ly	Console: 1999.9 Ly	5%	PC: 0.1 J/cm²	PC: 1999.9 J/cm²	5%
	UV Dose	●					0.1 MEDs	0 to 199 MEDs	5%	0.1 MEDs	0 to 199 MEDs	5%
	UV Index	●					0.1	0 to 16	5%	0.1	0 to 16	5%
Temperature	Inside Temperature	✔	✔	✔	✔		0.1°F	32° to 140°F	1°F	0.1°C	0° to 60°C	0.5°C
	Outside Temperature	✔		✔	✔	●	0.1°F	−40° to +150°F	1°F	0.1°C	−40° to +65°C	0.5°C
	Soil or Water Temperature	●				●	1°F	−40° to +150°F	1°F	1°C	−40° to +65°C	0.5°C
	Outside Temp-Hum Index	✔				●	1°F	−40° to +135°F	3°F	1°C	−40° to +57°C	1.5°C
	Temp-Hum-Sun-Wind Index	●					1°F	−90° to +135°F	4°F	1°C	−68° to +64°C	2°C
	Wind Chill	✔		✔	✔	●	1°F	−110° to +130°F	2°F	1°C	−79° to +54°C	1°C
Time/Date	Time	✔	✔	✔	✔	✔	1 minute	12 hours	8 sec/mo	1 minute	24 hours	8 sec/mo
	Date	✔	✔	✔	✔	✔	month/day		8 sec/mo	day/month		8 sec/mo
	Sunrise & Sunset	✔					1 minute			1 minute		
Wind	Wind Direction	✔		✔	✔	●	1°	0° to 360°	7°	1°	0° to 360°	7°
				✔	✔		10°	0° to 360°	7°	10°	0° to 360°	7°
	Compass Rose	✔		✔	✔	●	22.5°	16 compass points	7°	22.5°	16 compass points	7°
	Wind Speed	✔		✔	✔	●	1 mph 1 knot	2 to 150 mph 2 to 130 knots	5%	0.1 m/s 1 km/hr	1 to 67 m/s, 3 to 241 km/hr	5%
	Direction of High Speed	✔				●	22.5°	16 compass points	7°	22.5°	16 compass points	7°
	Wind Run					●	0.1 mile	0 to 1999.9 miles	5%	0.1 km	0 to 1999.9 km	5%

✔ Included
● Optional, shown on console
❍ Optional, requires WeatherLink

Unless listed separately, accuracy, resolution, and range are shown for Vantage Pro stations (except for Growing Degree-Days and Solar Energy, which are shown for GroWeather). The specifications for Perception II, Weather Wizard III, Weather Monitor II, and GroWeather may be somewhat different. For complete specifications, visit our website at www.davisnet.com/links.

Vantage PRO®

		BAR	HUMIDITY			RAIN			TEMPERATURE				WIND			WITH OPTIONAL SENSORS								
		Barometric Pressure	Inside Humidity	Outside Humidity	Dew Point	Rainfall Amount	Rain Storm Amount	Rain Rate	Inside Temperature	Outside Temperature	Heat Index	Wind Chill	Wind Speed	Wind Direction	Direction of High Speed	Evapotranspiration	Humidity (Extra)	Leaf Wetness	Soil Moisture	Solar Radiation	Temperature (Extra)	Temp-Hum-Sun-Wind	UV Radiation	UV MEDs
	Update Interval	15 min	1 min	50 sec	10 sec	10 sec	10 sec	10 sec	1 min	10 sec	10 sec	10 sec	2½ sec	2½ sec	2½ sec	1 hour	50 sec	62½ sec	62½ sec	50 sec	10 sec	10 sec	50 sec	50 sec
CONSOLE DISPLAYS																								
	Reading at end of update interval	●	●	●	●				●	●	●	●		●			●	●	●	●	●	●	●	
	Total amount for the interval					●	●									●								●
	Average reading for the interval												●											
	High reading for the interval							●																
SET ALARMS for																								
	Special Alarms	①				②	③						④			⑤								⑥
	High Reading		●	●	●			●	●	●	●		●				●	●	●	●	●	●	●	
	Low Reading		●	●	●				●	●		●					●	●	●		●			
DISPLAYED but not graphed																								
	Current Year High	●	●	●	●				●		●						●	●	●		●			
	Current Year Low	●	●	●	●				●			●					●	●	●		●			
GRAPHED & DISPLAYED for last 24 of each of the following																								
EOP	End-of-15-Minute Period Readings	●																						
EOP	End-of-Hour Period Readings	●	●	●	●				●	●	●							●	●			●		
TOTALS	15-minute Period Totals					●																		
TOTALS	Hourly Totals					●										●								●
TOTALS	Daily Totals					●										●								●
TOTALS	Monthly Totals					●										●								
TOTALS	Storm Totals (with start & end date)						●																	
TOTALS	Yearly Totals					●										●								
AVERAGES	10-Minute Averages												●											
AVERAGES	Hourly Averages or Dominant												●	●						●			●	
AVERAGES	Daily Averages or Dominant													●	●									
AVERAGES	Monthly Averages or Dominant													●	●									
AVERAGES	Yearly Averages														●									
HIGHS	One-Minute Highs							●																
HIGHS	Hourly Highs							●					●											
HIGHS	Daily Highs	●	●	●	●			●	●	●	●		●					●	●	●		●	●	
HIGHS	Monthly Highs	●	●	●	●			●	●	●	●		●					●	●	●		●	●	
HIGHS	Yearly Highs							●		●			●											
LOWS	Hourly Lows											●												
LOWS	Daily Lows	●	●	●	●				●	●		●						●	●					
LOWS	Monthly Lows	●	●	●	●				●	●		●							●					
LOWS	Yearly Low									●														

SPECIAL ALARMS

① **Storm Warning:** Amount of barometric pressure fall.
Storm Clearing: Amount of barometric pressure rise.

② **Flash Flood Warning:** 15-minute rainfall amount.
24-Hour Rain Alarm: 24-hour rainfall amount.

③ **Rainstorm Alarm:** Rainfall amount for current storm.

④ **10-Minute Average Wind Speed Alarm**

⑤ **Daily Evapotranspiration Amount Alarm**

⑥ **Daily UV Dose Alarm**

Update interval may vary depending on station ID and type of station. Details and specifications subject to change at any time without notice.

About Our Cover

In the tiny village of Massimeno, high in the Italian Alps, Andrea Toffaletti's Vantage Pro weather station reports data to the community's website and to MeteoNetwork, a nonprofit Italian meteorological association.

You can find out more about Massimeno and view the "meteo on line" at www.massimeno.net. For more on MeteoNetwork, visit www.meteonetwork.it.

Davis Hat

Now you can get your own Davis hat! Baseball-style cap is 100% cotton twill. Two-toned with washed khaki crown, dark-colored brim, and embroidered Davis logo. Self-fabric closure with brass buckle. One size fits all.

PR725 Davis Hat

Warranty

We warrant our products to be free of defects in material and workmanship for one year from date of original purchase. While we make every effort to carefully manufacture our products to the highest standards of quality, occasionally parts may be found to be missing, defective, or damaged. If you have a defective part, return the product to us, shipping charges prepaid. Include proof of purchase and a written explanation of the trouble. During the warranty period, we will, at our option, either repair or replace the product free of charge. This warranty does not cover damage due to improper installation or use, lightning, negligence, accident, or unauthorized service, or to incidental or consequential damages beyond the Davis products themselves. Implied warranties are limited in duration to the life of this limited warranty. Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental and consequential damages, so the above limitation may not apply to you. This warranty gives you specific legal rights. You may have other rights, which vary from state to state.

Details, specifications, and prices are subject to change at any time without notice.

Things to consider when
Purchasing an Electronic Weather Station

1. What weather variables are measured and recorded?

Most other stations offer barometric pressure, outside humidity and dew point, daily and yearly rainfall, wind speed and direction, wind chill, and outside temperature. Some also offer inside temperature and humidity, and a few even give you extra outside temperature readings and current rain rate. Only Vantage Pro gives you all these, plus:

- Additional Rainfall Information: 15-minute rainfall, hourly and monthly rainfall, and rainfall amounts for each of the last 24 storms.
- Additional Wind Speed Information: 10-minute average wind speed, direction of high speed, and 10-minute dominant wind direction.
- Apparent Temperature: Heat index (the combined effects of temperature and humidity) and, with the addition of a solar radiation sensor, temperature-humidity-sun-wind index.
- Optional Sensors for Solar and UV Radiation, something that's becoming more important as we become increasing aware of the dangers to health caused by excessive exposure to the sun.
- Additional Information (with optional sensors) for agricultural users: evapotranspiration, leaf wetness, soil moisture, and soil temperature.

2. How easy is it to set up ?

With most of the competing stations, you need to install each sensor separately, which adds complication and takes time and effort. Our Vantage Pro® weather stations are designed to make setup as easy as possible. The Integrated Sensor Suite is factory-assembled. Just complete a few minor assembly steps, insert the battery, and then you're ready to mount the sensors. Mount them all together using our optional tripod, or detach the anemometer to mount it separately. Flexible mounting options make it easy, either way.

3. What is the maximum transmission distance?

The wireless transmission range for most of the competing stations is generally quite limited. Although transmission range is highly variable (depending not only on the surrounding physical features of the land and structures but also on the RF interference in the area), our Vantage Pro weather stations will almost always out perform the competition. And—unlike the competition—we offer wireless repeaters should you wish to extend the range.

4. How many highs and lows are measured and recorded?

Most other stations simply give you the current readings. If highs and lows are available at all, they are usually quite limited. Only Vantage Pro gives you the highs and lows (and/or totals or average readings) for just about all available weather conditions, with the time and/or date they occurred, for the last 24 days, months, or years. No other weather station on the market even comes close. And not only can you view the data numerically, you'll also see it on Vantage Pro's on-screen graphs, giving you instantaneous visual representations of long-term trends.

5. How often is the information updated?

The Vantage Pro transmitter sends a data packet to the console every 2½ seconds. The weather conditions that are the most variable (such as wind speed and direction) are updated with each packet, while most other conditions are updated every 10 seconds. With the competition's stations, the update interval is much longer: 30 seconds, or even up to 3 minutes. This may not seem like an important distinction. But try watching the wind gust, or the rain suddenly come pouring down. It's very disconcerting to be looking out the window, seeing something happening weather-wise, and not see it reflected on the console for what seems to be an eternity.

6. How is the forecast generated?

The competition generally bases their forecasts strictly on whether barometric pressure is rising or falling. This results in none too accurate a prediction. Vantage Pro uses a sophisticated forecasting algorithm which takes into account not only barometric pressure, but also wind, rainfall, temperature, humidity, and longitude and latitude. The result? A much more accurate forecast. Not perfect, but even the guys with the satellite pictures don't always get it right!

7. How is the forecast displayed?

The competition gives their forecast by means of an icon. We have similar icons, plus over 80 different forecast messages that scroll across the bottom of the display-when you press the FORECAST key. None of the other stations have this scrolling message—it is unique to Davis. The ticker tape also gives additional information, depending on which key you press. For example, press the WIND key to display wind speed, and you'll see a message showing you the 10 minute average wind speed. If it's raining, you can press the RAIN YR key to see the last 15 minutes of rain, or RAIN DAY to see the last 24 hours of rain. And these are just a few examples! None of the competition has anything like this.

8. How much data can you graph on the screen?

With Vantage Pro, you can graph just about every weather variable, with averages and highs and lows for most, and go back in time for minutes, days, months, and years. The competition typically graphs just one variable—barometric pressure—and typically just for the last 24 hours. With all the graphs on Vantage Pro, you can do tons of analysis, even without purchasing an additional software package (although we offer one of those, too). And you'll find that the more dramatic the weather is, the more fun it is to look at the graphs. Just how windy is it, and how does it compare to the last wind storm? And how much rain did we get this month, as compared to last month?

9. Can you use the station at higher elevations?

Our stations can be used up to 12,500 feet in elevation. Many of the competing stations are limited to 6,000 feet or below. If you're lucky enough to live and work—or perhaps enjoy a vacation home—in the mountains, you'll find that our Vantage Pro weather station works just fine, no matter what elevation you're at.

10. Is there a computer interface?

If you'd like to do even more analysis, you can add our WeatherLink data logger and software package. The data logger stores data at the interval you choose (from one minute to two hours) for up to six months. You can transfer the data whenever you like, or leave your computer on to have it automatically transfer every day. The data logger uses non-volatile memory, so you won't lose the data even if you lose power. For some of the competing stations, no software package is available. And while other stations do offer a software package, they don't include a data logger—so your computer must be on and the software running at all times.

11. How many alarms are there?

Our alarms can be set for just about every weather variable, for just about any reason imaginable—over 70 alarms, in all. Like the graphs, the alarms found on the competition's stations are generally quite limited.

12. What is the accuracy, resolution, and range?

Our stations generally beat the competition's in accuracy, resolution, and range. It can be difficult to find the specs for competing stations. When we do find them, our testing shows that they are a bit, shall we say, optimistic. We are very proud of our specs, stand behind them 100%, and are proud to publish them in our catalog and on our website.

13. How many other people are using the stations?

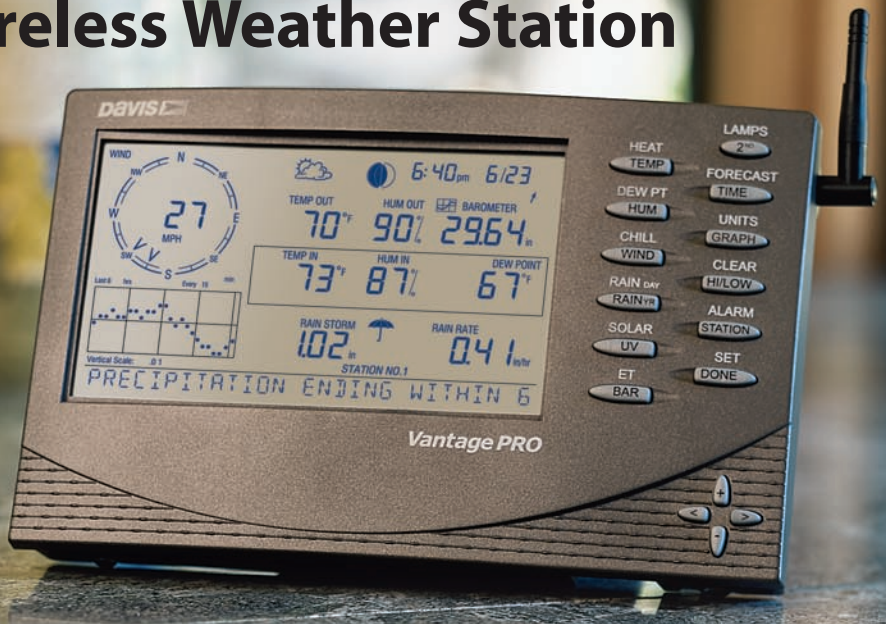
Although our Vantage Pro stations are new, we have an installed base of thousands and thousands of happy Davis weather station users around the country and around the world. If you check out the "Weather World 'Round" section on our website (www.davisnet.com/links), you'll see a listing for Norman, Oklahoma. Click on that link, and you'll go to the website for the National Weather Service's Storm Prediction Center. They're using our Weather Monitor II (a predecessor to the Vantage Pro station) to update the local "unofficial" weather conditions to their website. In addition, many Davis weather station owners participate as volunteer observers for the National Weather Service, the National Hurricane Center, and numerous local TV and radio stations.

14. How long has the company been in business?

In business since 1963, Davis Instruments opened up the home weather station market back in 1989. The competition has only appeared within the last few years. Our weather stations are manufactured right here in Hayward, California, and we have a full customer service and support staff. Most of the competing weather stations are made overseas, and it can be difficult (if not next to impossible) to get any kind of customer service or aftermarket support.

Vantage PRO®

Wireless Weather Station



Lets you keep an eye on critical weather conditions.

- **Barometric Pressure.** Currently and for each of the last 24 hours. Five-position trend arrow shows whether pressure is rising, falling, or stable.
- **Temperature.** Inside and outside temperature, currently and for each of the last 24 hours. High and low temperature alarms.
- **Humidity.** Inside and outside humidity, currently and for each of the last 24 hours. High and low humidity alarms.
- **Rain.** Rainfall for the last 15 minutes and the last 24 hours, days, months, and years. Flash flood and 24-hour rain alarms.
- **Rain Rate.** Currently and for each of the last 24 minutes. Rain rate alarm.
- **Rain Storm.** Rainfall for the last 24 storms, with beginning and ending dates for each storm. Rain storm warning and alarm.
- **Wind Speed.** Current wind speed. Average for the last ten minutes and each of the last 24 hours. High and average wind speed alarms.
- **Wind Direction.** Currently and for the last 24 hours, days, and months. Direction of high wind speed.
- **Wind Chill.** Current wind chill. Wind chill alarm.
- **Dew Point.** Currently and for each of the last 24 hours. High and low dew point alarms.
- **Heat Index.** Currently and for each of the last 24 hours. Heat index alarm.
- **Sunrise & Sunset.** Time of sunrise and sunset at your location—it even takes daylight savings time into account!
- **Highs & Lows.** For most weather variables, with time and/or date, for each of the last 24 hours, days, months, and years.
- **Optional Sensors.** For UV and solar radiation, evapotranspiration, soil moisture, and more.
- **On-screen graphing.** Graph current conditions, averages, or highs and lows for the last 24 hours, days, months, or years.
- **Your own local forecast.** Forecast icons show sun, part sun, clouds and rain, or snow. Check the scrolling ticker-tape for more details.

New! WindScribe Ultrasonic Wind Speed Meter. See page 17.

All this—and much more—in a station that's easy to set up and fun to use.

DAVIS
Davis Instruments
3465 Diablo Avenue, Hayward, CA 94545-2778